

तमसो मा ज्योतिर्गमय

SANTINIKETAN
VISWA BHARATI
LIBRARY

228

J 2

The Eagle and the Captive Sun,

A STUDY IN COMPARATIVE MYTHOLOGY.

BY

JNANENDRALAL MAJUMDAR, B. A.,

MEMBER OF THE CALCUTTA MATHEMATICAL SOCIETY,

MEMBER OF THE INDIAN RESEARCH SOCIETY, &c.

Published by the Indian Research Society.

AGENTS.

CALCUTTA.....BHATTACHARYA & SONS,
65, COLLEGE STREET.

LONDON.....MESSRS. KEGAN, PAUL, TRENCH,
TRÜBNER & Co., LTD.,
PATERNOSTER HOUSE, CHARING CROSS ROAD.

1909.

/ Price Rs. 3.

PRINTED BY R. R. SINHA,
AT THE "OLYMPIAN" PRESS, 56, Bechu Chatterjee Street,
CALCUTTA.

TO
THE HON'BLE MR. JUSTICE
ASUTOSH MOOKERJEE,
SARASWATI, C. S. I.,
M. A., D. L., D. Sc.,
F. R. A. S., F. R. S. E.,

*Vice-Chancellor of the Calcutta University,
President of the Asiatic Society of
Bengal, and Chairman of the Board
of Indigenous Sanskrit Education, Bengal,*

THIS MAIDEN WORK

IS,

By Permission,

DEDICATED

AS AN HUMBLE TRIBUTE OF
HIGH ESTEEM AND SINCERE ADMIRATION.

PREFACE.

Our only excuse for presenting this small volume to the public lies in the fact that the legend of the Eagle as it is contained in the different branches of Aryan mythology has not as yet, so far as we are aware, received an elaborate and comprehensive treatment in the hand of any scholar. To come to the point at once, our labours on the subject have tended to prove three things :—First, that the legend of the Eagle is a common heirloom of all branches of Aryan mythology ; second, that the Eagle of the legend was originally only the constellation Aquila ; and, third, that the legend contains references to the constellation Aquila which were true at least six thousand years ago in an arctic home. The elaborate accounts of the Eagle we find in the Mahabharata and the Rig Veda, have enabled us to demonstrate mathematically that the time and place which satisfy the conditions necessary for giving a reasonable interpretation to the all-Aryan legend are about 4000 B. C. and an arctic country lying between latitudes 69° to 74° N. Objection will most probably be raised in many

quarters against our finding that the Eagle of the legend was originally a constellation in the heavens. It will be said that the stars had not yet been grouped into constellations when the forefathers of modern Aryans lived together in one common home. There are various theories crediting the Greeks, the Babylonians, &c with the invention of the system of grouping stars into constellations. But when we find scholars like Prof. MaxMullar holding the opinion that the primitive Aryans had sufficient knowledge of astronomy to enable them to divide the moon's path into lunar mansions, we are by no means justified in saying that they could not at the same time divide the sun's path and other important parts of the heavens into constellations to suit the astronomical conditions of the place they lived in. Indeed, the origin of constellations is shrouded in a mystery and it is quite possible that they were invented at a time of untold antiquity when the civilised races of Eurasia lived together or within easy distances from each other. If, therefore, we can show, by means of an extensive survey of all branches of Aryan mythology, that some of the legends which have as yet remained unexplained can be reasonably interpreted by attributing to the ancient and united Aryans a knowledge of some of the constellations we are at present familiar with

and of the origin of which we are by no means certain, then surely there is nothing which can tell us positively that we are following a wrong path of interpretation.

The legend of the Eagle is, in our opinion, a solar myth. The other day we were confronted by a learned follower of the historical school of interpreters of ancient myths who told us that we were trying to uphold the lost cause of the mythological school. But so far as our humble knowledge goes we do not know when and by whom it has been proved to be a lost cause. We think that there is truth in the arguments of both the historical and the mythological school and that each interpretation of either school ought to be judged on its own merit.

We have approached our subject with an open mind and our constant endeavour has been not to warp any part of the story so as to make it conform to any pre-conceived theory. Our firm conviction is that no ancient legend, however queer it may appear, requires any great squeezing of terms or twisting of imagination in order to enable one to discover its real meaning. Our difficulty in dealing with such legends lies as much at least in our ignorance of the peculiar conditions under which they were originally conceived as in the changes which they have subsequently undergone owing to what MaxMullar calls putrefaction of language. These conditions are

generally four-fold, physical, mental, moral and spiritual. For all these a sincere truth-loving student ought to have an open mind. With the advance of knowledge even firmly established theories—theories which a hundred years ago people would have called it madness to disbelieve—have been and are being subverted. The commonwealth of letters is a progressive republic and knows no halting. Stupendous no doubt is the task that confronts the student of comparative religion and mythology. He looks back through ages and ages, dark, dismal and distant, till his vision fails and is lost in a mist in which nothing is perceived, nothing is distinguished—a mist immensely more puzzling and perplexing than the faintest nebula ever discovered with a telescope in the vault of space. The difficulty of the subject is equalled only by its importance. It is a sacred task to try to unfold the progress of the human mind in its religious aspect, and distinguish between what are the essential elements of the atmosphere of religious thought and what are only generated in it by local conditions. What these peculiar conditions were under which the minds of primitive Aryans worked before their separation may be hard to discover, but with the progress of science and the facility which modern civilisation affords for interchange of thought the student does not despair of accomplishing his task with sufficient

We regret that some typographical errors have crept into the book, but we do not think that they are of such consequence as to require a page on errata.

12/1 SUKES STREET, CALCUTTA.

J. L. M.

September, 1909.



correctness. Granting that the theory of an original single home of the Aryan race is correct, it must be admitted that all similar legends contained in the mythologies of the different Aryan peoples now lying scattered throughout the world had a single origin. We cannot, therefore, be sure of the correctness of any interpretation of any mythological legend unless that interpretation holds good in all similar legends in all Aryan mythologies. It is from this point of view that we have discussed the legend of the Eagle in this book.

For the translations of verses of the Rig Veda contained in this book we are indebted to Prof. Griffith, Prof. MaxMullar, Prof. Wilson, Mr. Eggeling and others, but in many places we have found it necessary to alter the renderings of these scholars in order to make them more literal. The hymns of the VIIIth Mandala of the Rig Veda referred to in this book have been numbered independently of the Vâ lakhilya hymns. Anyone willing to take these latter hymns into consideration in the numbering should add 11 to the number of every VIIIth Mandala hymn bearing a higher number than 48. No particular system of transliteration has been strictly followed for fear of puzzling lay readers with strange signs and dots. And I hope that no scholar will find this deficiency a source of inconvenience to him.

TABLE OF CONTENTS.

	Page
INTRODUCTION	1
CHAPTER I.	
THE LEGEND	4
CHAPTER II.	
ARIES AND PEGASUS	25
CHAPTER III.	
THE EAGLE AND THE ARCHER ...	54
CHAPTER IV.	
THE EVIDENCE OF GREEK MYTHOLOGY	
The Eagle of Zeus	78
Ganymedes and Hebe	79
Tityos	81
Heracles and Hydra	83
THE EVIDENCE OF NORSE MYTHOLOGY	85
Odin	88
The world-tree Yggdrasil ...	90
The Single Eye of Odin ...	91
The Cyclopes	93

	Page
Three giants with one eye in common	94
Thor's hammer	98
The Horse	100
Gilla Dacker and his horse ...	102
Cuchulinn and MacCool ...	105
Hoofs backward... ..	106
A wizard in Iceland ...	107

CHAPTER V.

THE EVIDENCE OF IRANIAN MYTHOLOGY	110
The Eagle	110
The Eagle and the Glory ...	112
Ardvi Sura Anâhita ...	115
Vafra Navaza	117
The Eagle's great power ...	118
Cygnus, Ophiuchus and the Milky Way	121
Tistrya as a white horse ...	122
Azi Dahâka and Trisiras ...	131
The struggle for Glory ...	135
The long continuous day ...	136

CHAPTER VI.

THE EVIDENCE OF THE BRAHMANAS	138
The Brahmanas	139
The metres of Mandala IX ...	140
The Aitareya Brahmana's version of the legend	141
The Vedic basis of the above	144

	Page
The mysticism of R. V., I, 164	146
Suparna	147
Vāk	150
Vāk and Suparna ...	156
The nature of the Sacrifice ...	161
The long day sacrifice ...	162
The Angirases	163
The article sacrificed ...	166
How obtained	167
The power of metres ...	168
Vāk identified with Syena ...	170
Diksha	176
Tapas	179
Dakshina	182
The syllables	186
Krisanu's arrow... ..	189
Gandharvas and ladies	
in the sacrifice	190
Suparnî and Kadru	194
The Horse	201
Indra and Mahendra ...	203
The peculiarity of the Maha-	
bharata story	207
Soma identified with Vritra...	210
The pressing stone	213
Overturning of cups of soma	214
The Sun is the cater of the Moon	215
THE EAGLE IN THE RAMAYANA ...	216

	Page
INDEX OF PASSAGES	223
GENERAL INDEX	227

LIST OF ILLUSTRATIONS.

Figure 1	...	...	13
„ 2	...	...	18
„ 3	...	...	106



THE Eagle and the Captive Sun.

INTRODUCTION.

The Garurhopakhyanam or account of the birth and mighty exploits of Garurha, the great falcon or eagle, is a mythological legend contained in the Mahabharata. No less than nineteen chapters of the great epic are devoted to this subject in the form of an episode in the story of the *sarpasatra*, or snake sacrifice, of Raja Janamejaya, fourth in descent from Arjuna, the hero of the Mahabharata. The episode includes the great Pauranic conception of Samudra Manthana or churning of the Ocean, which so largely pervades later Hindu religious literature and has taken a firm hold of later Hindu religious thought. In grandeur of conception, height of imagination and poetic refinement the Garurhopakhyanam stands preeminent among the most striking episodes in the Mahabharata. Grotesque and fanciful, grand and supernatural, it na-

turally leads the student to enquire what it really means. Did the great Rishi, the author of the Mahabharata, intend this episode to be taken literally, that is to say, as a record of facts in actual existence ? An orthodox Hindu of the present degenerate days may curse the man who tries to shew that it is an allegorical description of a state of things which is not less grand than its poetic representation. The days are gone when Jaska and Sayana explained Vedic hymns etymologically and as poetic representations of natural phenomena, and were still esteemed as the best of Hindus and the most learned of men. The work of explaining the Shastras in the light of science which should be the proper province and privilege of Hindus has now devolved on Westerners. As India gradually lost the knowledge of the higher sciences her Shastras also became gradually more and more formal and lifeless, and ritualism took the place of inspiring Vedic ceremonies ; and Hindu ideas began to flow in channels which, however long and beautiful, were too narrow to reflect the entire range of thought. From the East the sciences migrated to the West, and on Westerners has naturally fallen the task of taking up the interpretation of ancient Hindu allegories at the points at which they were left by ancient Hindu commentators. The Dawn

and Storm theories, which are the main instruments in the hands of Western scholars in explaining Vedic hymns, were originated and developed by Hindu commentators such as Sayana. And Western science had up till recently failed to alter or supplement them to any large extent. The honour of doing so belongs to a Hindu who is also a Brahmin, Mr. Bal Gangadhar Tilak. His theory of the Arctic Home in the Vedas has thrown a new light in the panorama of Hindu mythology. It has a novelty and a charm which at once strike the imagination and fill the mind with admiration for its author. To my mind the Arctic Theory appears very reasonable and capable of cutting many a Gordian knot in our mythology. But theories are theories, and cannot be regarded as unerring guides in reasoning and argumentation so long as they are not proved to hold good in large numbers of cases, the experiments being made by disinterested men, by men, that is, who, not being their authors, have no interest in their fate. It is from this point of view that I shall try to apply the Arctic Theory to the legend of Garurha.

CHAPTER I.

THE LEGEND.

In the Mahabharata Rishi Kashyapa is described as the progenitor of Adityas, Daityas, Danujas, Danavas, Rahu, Apsaras, Celestial Birds, Gandharvas, Serpents, &c. In other words, almost all the important actors in the Hindu mythology trace their origin to Rishi Kashyapa. It should be noted, however, that this Rishi does not appear as the progenitor of Rakshasas, Kinnaras, Yakshas and the animal kingdom who were born of Rishis Pulasta and Pulaha. Kashyapa had 13 wives, daughters of Prajapati Daksha and sisters of the 27 Nakshatras of Hindu astronomy. Of his thirteen wives we are here concerned with only two, namely, Vinata, mother of Celestial Birds, and Kadru, mother of serpents. Kadru begged of Kashyapa one thousand sons, but Vinata prayed for only two of immense strength and prowess, and their prayers were granted. Kadru gave birth to a thousand eggs, and Vinata to two. After five hundred years one thousand powerful serpents came out of Kadru's eggs, but Vinata's eggs remained unhatched. Vinata grew impatient and, in a moment of ill-luck, broke one of her eggs, and lo! there came out of it the resplendent Arun, a child only partially formed. Enraged at this forced and premature

birth Arun cursed his mother that she would be a slave of Kadru for five hundred years, and said that if she would allow the other egg to be properly hatched its offspring would deliver her from bondage. The great Arun then went away to attend on the sun. Shortly after, Vinata and Kadru laid a wager on Uchchaisrava,* the celestial horse of Indra, Vinata asserting that its tail was white and Kadru saying that it was black. The stake was that whoever lost the wager would become the slave of the other. Kadru knew that she was wrong. She, therefore, called her serpent sons and asked them to cover the tail of the celestial horse with their bodies so that it might look black. Some of the serpents at first refused to obey her order and, therefore, received from her the curse that they would be killed in Janamejaya's *sarpasatra* or snake sacrifice. The serpents then obeyed her out of fear. On the following morning Vinata and Kadru sailed across the sky and arrived at the great Ocean where Uchchaisrava was. The serpents clinging to the tail of that noble steed, the tail looked black, and Vinata lost the wager in consequence of deceit. But bound as she was by an unconditional pledge, she became the slave of Kadru. In the meantime the second son of Vinata burst out of the egg in which he lay confined. He was a mighty bird of immense

size. He was *kamachari*, that is, capable of going wherever he desired and was regarded as more powerful than even Indra. His appearance struck the gods with awe and fear. But they were consoled by Agni who told them that the great bird was really a friend of theirs and asked them to worship him as their benefactor. It was at this time that he is said to have thrown Arun towards the East in order to shield the worlds, to some extent, from the scorching rays of the sun. The sun, it is said, had not yet risen, but was only contemplating in his place of hiding to burn the worlds. The mighty bird then went to his mother where she was serving Kadru and began to serve the serpents himself. Some days passed in this manner when he made a determination to free his mother and himself from bondage, and asked the serpents what he could do for them that they might release him and his mother from their service. The serpents said that if he could procure for them the Heavenly nectar, they would emancipate him and his mother. Bent on securing *amrita*, the bird went out in quest of food to prepare himself for a great fight with the gods, and his father pointed out to him a large elephant and a huge tortoise, two Brahmin brothers, transformed into these shapes by each other's curses. The bird flew into the air with those two big

animals and repaired to a mountain in order to eat them. And the Rishis gave him the name Garurha for bearing such a big weight. Refreshed by that sumptuous repast, the king of birds went to Heaven to take possession of Amrita. A terrible fight ensued in which the gods, including Indra, were defeated. The keepers of *amrita*, two large serpents, as it is said, were killed and the Heavenly nectar was carried away. While Garurha was carrying the pot of Amrita through the sky, Vishnu met him and after an exchange of blessings the former consented to become a *vahan* or bearer of the latter. At this point Indra hurled his mightiest weapon, *vajra* or thunderbolt, against Garurha. The *vajra* failed to make any impression on the bird who, however, cast one of his feathers as a mark of respect for the great Rishi of whose bones the powerful missile had been made. From the beauty of the feather so cast off Garurha received the name of *suparna* or the bird of beautiful feathers. The *vajra* proving ineffectual, Indra made peace with Garurha and said that he (Indra) would manage to steal the pot of *amrita* from the place where he (Garurha) would deliver it to the sons of Kadru. Garurha then hastened to the serpents, placed the pot before them, and got his and his mother's release from their service. The serpents went

to bathe and perform the usual religious ceremonies before drinking the *amrita*, and while they were thus engaged Indra stole the pot. In this manner the serpents were deprived of the Heavenly drink, but Garurha and his mother got their release from bondage.,

The above is a reproduction of the Gargyropakhyanam of the Mahabharata in "all its principal details.

It is now our intention to apply the Arctic Theory to this story and see whether we can get a rational explanation of it or not. We shall for that purpose first give a brief account of the principal features of the circumpolar year. Exactly at the Pole the year is divided into two equal parts of continuous day and continuous night, of six month's duration each. And this division of the year into two equal parts of light and darkness becomes a division into four parts as we descend from the Pole to the circumpolar region. And this state of things continues down to $23\frac{1}{2}^{\circ}$ from the Pole, after which we have the ordinary days and nights of the temperate zone. The four parts of the circumpolar year are :—(1) *A succession of ordinary days and nights*, occurring at the time of the Autumual Equinox ; (2) *one long continuous night*, occurring at the time of the Winter Solstice ; (3) *a succession of*

ordinary days and nights, occurring at the time of the Spring Equinox and lasting for a period equal to that of the previous succession of ordinary days and nights ; and (4) *one long continuous day*, occurring at the time of the Summer Solstice and lasting for a period equal to that of the long continuous night. Another characteristic common to the Pole and the circum-polar region is their twilight, both in the morning and in the evening, which lasts for two months at a time at the Pole and for less periods, varying according to latitude, in places south of it.

Let us now apply these facts to the subject of our paper, the Garurhopakhyanam. As the father of Adityas, Daityas, Danujas, Furies, Danavas, Rahun, Apsaras, Celestial Birds, Gandharvas, Serpents, &c, Rishi Kashyapa, the grandson of Brahma, may well be regarded as the immediate creator of the visible universe and the forces that are at work in it, Brahma, being the ultimate source of all created things. Chief among the sons of Kashyapa are the Adityas, twelve in number. Every student of Hindu mythology knows that these twelve Adityas are only twelve personifications of the sun. Amarkosh, the great Sanskrit lexicon, says that the sun has "twelve atmas or entities"

(*Dwadshatma*). The names of the *Adityas* are—*Dhátá*, *Mitra*, *Aryamá*, *Sakra*, *Varuna*, *Ansha*, *Bhaga*, *Vivashván*, *Púshá*, *Savitá*, *Twash tá* and *Vishnu*. All these are synonym of *surya*, the sun. Many of them occur in the *Vritra* legend of the *Veda*. The word *Twash tá* occurs in the *Zend Avesta* as *Tishtrya*, the hero who overcomes *Apaosha*, the demon of darkness. There are reasons to suppose that the twelve *Adityas* represent the sun in the twelve months of the year. In the Hindu Mythology by far the most important of these representations is *Vishnu*, the great Lord of the Universe who covers the three worlds, upper, middle and nether with his three feet—the word *Vishnu* in Sanskrit meaning *Vyápanasila* i.e. permeating and covering the Universe. In the *Vishnu Purana* the sun is said to be nothing but the three Powers of *Vishnu*—*Rik*, *Yaju*, and *Sáma*—lighting and purifying the world. And who else in the world represents the Divine Power of the Almighty more largely than the sun? It is from the sun that this world derives every spark of life that it contains. The five *Pranas* which impart animation to physical forms are derived from him. It is his actinic rays which give rise to vegetable life in this world. In short, this world may well be said to live, move and have its being in the sun. Were the Hindu Rishis then far away from the truth when they worshipped God in the sun?

Next to Vishnu comes Indra as the most powerful of the gods. He is the slayer of Vritra and liberator of the celestial waters. He delivers the world from Daityas and Danavas, and gives rain to it. It will appear from the order in which the names of the Adityas are given that if Vishnu represents the sun in the Spring Equinoctial period, Sakra or Indra will represent the sun in the Summer Solstitial period, and it will be seen later on that this is really the case. Now, Kashyapa appearing as the father of Adityas, &c, on the one hand, and of Daityas, &c, on the other, Light and Darkness may be regarded as wedded to him and thereby giving birth to those Gods of Light and Demons Darkness. That Kasyapa's wives represented heavenly bodies and natural phenomena is clear from the fact that they were sisters of the 27 Nakshatras of Hindu Astronomy. According to this view Vinata represents light and Kadru darkness. Our story begins at the point where Vinata and Kadru are said to be living with Rishi Kasyapa with no trouble to disturb the happy tenor of their lives. This period of time may be taken to represent the *first* part of the circumpolar year, a *succession of ordinary days and nights* occurring at the time of the *Autumnal Equinox*. Before long the time came for Kadru and Vinata to bear children and we have seen that their prayers for one thousand sons and two sons respectively were granted

and they both conceived the effects of their wedded lives in their wombs. The birth of the eggs represents the birth of the seeds of the future struggle between light and darkness. Now, at the Equinox the length of the day is equal to the length of the night, and after it the night begins to gain over the day, as it is the Autumnal Equinox we are referring to here. The Equinox, therefore, marks the time preparatory to the future struggle between light and darkness. The eggs may, therefore, be taken to be born at the Autumnal Equinox. Five hundred years elapsed and Kadru's eggs brought forth one thousand serpents, but nothing came out of Vinata's eggs. In exceeding impatience Vinata broke open one of her eggs and Aruna, a half-formed or unformed child, was born. Enraged at his mother's conduct he cursed her with bondage to Kadru for five hundred years and went away to attend on the sun. Now, the birth of the serpents and that of Aruna take place almost at one and the same time. In accordance with our theory the serpents represent demons of darkness, and Arun, it is distinctly stated in the legend, represents twilight, both in the evening and in the morning. The reign of darkness, therefore, begins at the same time as the twilight. Before advancing further, I shall ascertain mathematically some of the geographical and

astronomical conditions which have been allegorised in the story.

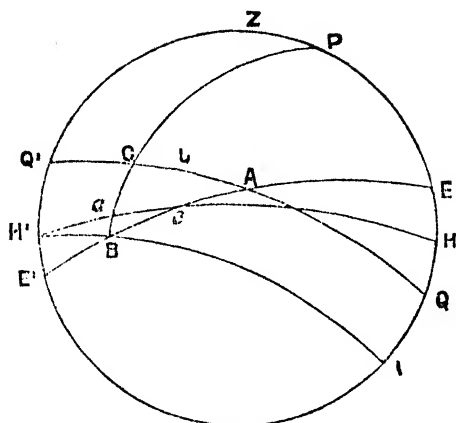


FIG 1.

In the annexed figure, which represents the celestial sphere, let P be the Celestial North Pole, Z the zenith, QQ' the Celestial Equator, EE' the Ecliptic and A the Autumnal Equinoctial point. We have seen that Kadru's and Vinata's eggs were born at the Antumual Equinox, *i. e.*, at A and that the serpents and Arun were born 500 years later. Let B mark the position of the sun at the time of the latter incident. The reign of darkness *i. e.*, *one long continuous night*, which we have called the second part of the circumpolar year, therefore, begins at B. This long continuous night is to last for 500 years, as Vinata is to remain a slave of Kadru for 500 years. The

period of ordinary nycthemerons from A to B is, therefore, equal in extent to the long continuous night. But the Winter Solstice, E in the figure, divides the long continuous night into two equal parts.

Therefore, $AB = 2BE'$. But $AE' = 90^\circ \therefore AB = 60^\circ$

AE' represents the course of the sun during 3 months. AB , therefore, represents 2 months and BE' one month. The long continuous night is, therefore, one of two months' duration. The year at the place in question, therefore, consists of one long continuous night lasting for two months, one long continuous day of equal length and ordinary nycthemerons lasting for 8 months but divided into two periods of 4 months each, one at the time of the Autumnal Equinox and the other at the time of the Spring Equinox. Let us now find out the latitude of the place.

Through B draw $H'BI$ parallel to QQ' .

The ecliptic is inclined at an angle $23^\circ 27'$ to the Equator.

Draw the arc of a great circle PCB cutting the Equator at C.

Let $BC = a$, $AC = b$ and $BA = c$.

In the spherical triangle ABC ,

$A = 23^\circ 27'$, $C = 90^\circ$, and $c = 60^\circ$

Now
$$\frac{\sin A}{\sin a} = \frac{\sin C}{\sin c} \quad (\text{Spherical Trigonometry})$$

$$\frac{\sin 90^\circ}{\sin c} = \frac{1}{\sin c}$$

$$\therefore \sin a = \sin c \sin A$$

$$\therefore L \sin a + 10 = L \sin c + L \sin A$$

$$= L \sin 60^\circ + L \sin 23^\circ 27'$$

$$= 9.9375306 + 9.5998270 = 19.5373576$$

$$\therefore L \sin a = 9.5373576$$

$$\therefore a = 20^\circ 9' \text{ approximately.}$$

Now the great circle H'H is the horizon of the place, where the sun is invisible after its descent from B in the ecliptic. Therefore, ZH'=90°=PQ' \therefore Q'H'=ZP.

But ZP = co-latitude, because the latitude of a place = the altitude of the Pole.

$$\therefore a = BC = Q'H' = \text{co-latitude.}$$

$$\text{But } a = 20^\circ 9'$$

$$\therefore \text{the latitude of the place} = 69^\circ 51'.$$

These are then the astronomical and geographical conditions which explain the Garurha legend in every point up to the birth of the serpents and Arun, *i e*, up to the beginning of the long continuous night and the twilight which accompanies it.

The next point in our story is the manner in which Vinata was enslaved to Kadru, the serpents serving as instruments for the purpose. A detailed explanation of this part of the legend will be given in a subsequent part of this essay. For the present it will be

sufficient to know that Vinata's enslavement represents the enslavement of light and prevalence of continuous night at the time of the Winter Solstice, and this, I hope, I have been able to make clear to the reader.

We have said before that the birth of the serpents and that of Arun were contemporaneous events and that means that the commencement of the reign of darkness was synchronous with the appearance of twilight. The first twilight was evening twilight as it followed the sun that had set in the west. Arun is, therefore, said to have hastened to attend on the sun almost immediately after his birth. Let us now see why twilight, which is such an ordinary thing with us, is given so much importance in the Mahabharata legend. Twilight, whether of the morning or of the evening, is only the light of the sun reflected by the particles of vapour, dust, &c., which are held in suspension in the atmosphere when the sun is below the horizon. It moves as the sun moves and lasts so long as the sun remains within 18° below the horizon. In the tropical and temperate zones it is brief and evanescent. At the Pole where there is night for 6 months in the year twilight is the longest and lasts continuously for more than two months both at the commencement and at the close of the long night.

"It will be the peculiar privilege," says Mr. Tilak, "of the polar man to witness the splendid spectacle of a long continuous dawn with its charming lights, revolving, like the stars at the place, every day in horizontal planes, round and round him, as long as the dawn lasts." As the observer will descend from the Pole the twilight will no longer move in horizontal planes, because the observer's horizon will no longer coincide with the Equator or, more correctly, be parallel to it. The result of this will be that twilight will *cease to be constantly visible* during the period of its visibility. Within 9 degrees from the Pole this period will be divided into two parts, in one of which it will be constantly visible, whilst in the other it will appear and disappear once every 24 hours. Beyond 9 degrees from the Pole twilight will only appear and disappear like the sun in the temperate or the tropical zone. It will be longest at the commencement of this period, shortest at its middle and again longest at its close. To the inhabitants of the circumpolar region the shortest twilight during the long continuous night is consequently a very important phenomenon as it marks the Winter Solstice and tells them that the period of darkness is coming to a close. Now, twilight is an attendant on the sun. It attends on the *setting* sun in the West and

on the *rising* sun in the East. The twilight of the long continuous night is an attendant first on the sun that has set at its commencement and next on the sun that will rise at its close. The Winter Solstice, which marks the middle of this period, may, therefore, be justly said to be the time when twilight ceases to attend on the setting sun, or on the sun that has set, and begins to attend on the rising sun. Again, as the sun finishes its downward and commences its upward course at the Winter Solstice the twilight of the long continuous night may be even scientifically said to transfer its service from the sun that has set to

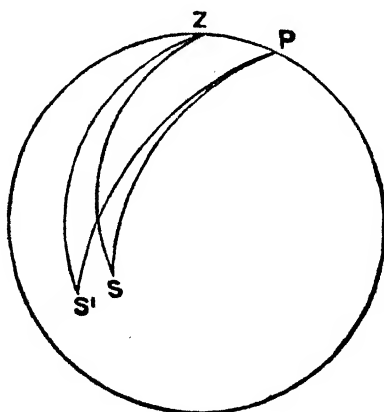


FIG 2.

To find out mathematically the duration of twilight at the beginning and middle of the long continuous night. In the adjoining figure let Z be the zenith, P the pole and S the position of the sun during the 1st 24 hours of the long continuous night such that it is 18° below the horizon, that is, its zenith distance is 108° . Join S with P and Z by arcs of great circles. In the spherical triangle ZPS,

the rising sun at that point of time. The legend under consideration here says that it was

$ZP = 20^{\circ}9'$, $ZS = 108^{\circ}$ and $PS = (90^{\circ} + 20^{\circ}9') = 110^{\circ}9'$. Let $W = 119^{\circ}9'$, half the sum of these sides. Now,

$$\begin{aligned}\tan \frac{1}{2} ZPS &= \sqrt{\frac{\sin (W-PS) \sin (W-ZP)}{\sin W \sin (W-ZS)}} \\ &= \sqrt{\frac{\sin 9^{\circ} \sin 99^{\circ}}{\sin 119^{\circ}9' \sin 11^{\circ}9'}} = \sqrt{\frac{\sin 9^{\circ} \sin 81^{\circ}}{\sin 60^{\circ}51' \sin 11^{\circ}9'}} \\ \therefore L \tan \frac{1}{2} ZPS - 10 &= \frac{1}{2} \{ (L \sin 9^{\circ} - 10 + L \sin 81^{\circ} - 10) \\ &\quad - (L \sin 60^{\circ}51' - 10 + L \sin 11^{\circ}9' - 10) \} \\ &= \frac{1}{2} \{ (L \sin 9^{\circ} + L \sin 81^{\circ}) - (L \sin 60^{\circ}51' + L \sin 11^{\circ}9') \} \\ &= \frac{1}{2} \{ (9^{\circ}1943324 + 9^{\circ}9946199) - (9^{\circ}9411871 + 9^{\circ}864076) \} \\ &= \frac{1}{2} \{ 19^{\circ}1889523 - 19^{\circ}2275947 \} = \frac{1}{2} \times (-0^{\circ}0386424) = -0^{\circ}0193212 \\ \therefore L \tan \frac{1}{2} ZPS &= 10 - 0^{\circ}0193212 = 9^{\circ}9806788. \\ \therefore \frac{1}{2} ZPS &= 43^{\circ}43'30'' \text{ nearly. } \therefore [ZPS = 87^{\circ}27'.\end{aligned}$$

But ZPS is the hour angle of the sun for half the required duration of twilight. Therefore, the required duration of twilight $= 2ZPS \div 15 = 11$ hours 40 minutes (approximately). The duration of twilight at the middle of the long continuous night, that is, at the winter solstice is found out thus :

Let S' be the position of the sun so that $ZS' = 108^{\circ}$, $PS' = 90^{\circ} + 23^{\circ}27' = 113^{\circ}.27'$. Here $W = 120^{\circ}.48'$

$$\begin{aligned}\tan \frac{1}{2} ZPS' &= \sqrt{\frac{\sin (W-PS') \sin (W-ZP')}{\sin W \sin (W-ZS')}} \\ &= \sqrt{\frac{\sin 7^{\circ}21' \sin 100^{\circ}39'}{\sin 120^{\circ}48' \sin 12^{\circ}48'}} = \sqrt{\frac{\sin 7^{\circ}.21' \sin 79^{\circ}.21'}{\sin 59^{\circ}12' \sin 12^{\circ}48'}} \\ \therefore L \tan \frac{1}{2} ZPS' - 10 &= \frac{1}{2} \{ (L \sin 7^{\circ}21' + L \sin 79^{\circ}21') \\ &\quad - (L \sin 59^{\circ}12' + L \sin 12^{\circ}48') \} \\ &= \frac{1}{2} \{ (9.1069729 + 9.9924539) - (9.9339729 + 9.3454688) \} \\ &= \frac{1}{2} \{ (19.0994268 - 19.2794417) \} = -0.0900074. \\ \therefore L \tan \frac{1}{2} ZPS' &= 10 - 0.0900074 \\ &= 9.9099926. \\ \therefore \frac{1}{2} ZPS' &= 39^{\circ}6' \text{ approximately.} \\ \therefore [ZPS' &= 78^{\circ}12'.\end{aligned}$$

Therefore, the required duration

of twilight $= 2 \times 78^{\circ}12' \div 15$

$= 10$ hours 25 minutes (approximately).

Garurha who almost immediately after his birth threw Arun eastward, that is, to attend on the rising sun. The birth of Garurha and the commencement of twilight's service with the rising sun were, therefore, contemporaneous events. Garurha was, therefore, born at the Winter Solstice. At this point the author of the Mahabharata very artistically introduces a story which can be rationally explained only on the supposition that it depicts a condition of nature obtaining in an arctic home. The sun, it is said, had determined to burn the worlds. The cause of the sun's wrath was that the gods had not helped him when he had been conquered and made captive by Rahu. The poet of the Mahabharata says that the Rishis and the Devas were so much frightened by the prospect of a general conflagration in the universe that they went to Brahma to take his advice as to the best means of preventing it. Now, if the approaching sunrise spoken of in this story had nothing peculiar about it, that is to say, nothing that made it different from the ordinary sunrise of the temperate or the torrid zone, it is impossible to understand why it struck so much terror into the hearts of the Rishis and the Devas. This terror can be explained only on the supposition that the sun having set many days before, people felt grave mis-

givings that he might bring serious mischief with him when he rose again. Who could say what dire evils might befall this earth if the sun rose suddenly and without any preparation, after an absence of a month or two? But Arun gently prepares the world for the next sun-rise and thus becomes the intermediary between the earth and the sun, shielding the former from the rage of the latter.

Born at the Winter Solstice Garurha gives to the inhabitants of the circumpolar region a promise of the approaching sunrise and consequent end of the long reign of darkness. His advent is marked by the appearance of Arun in the East as a messenger of the sun, and the world hails him as a friend of the gods. But he is not yet free to carry the sun to them. He must serve the ministers of darkness for some time and he actually begins service under the serpents after his birth. This service marks the latter half of the long continuous night beginning with the Winter Solstice and ending with the actual rise of the sun. After Garurha has served the serpents for some days he and Vinata carry them and Kadru to Nágálaya, the proper abode of Nágas or serpents. The poet says that Garurha carried them along a route too close to the sun and they were scorched by its fiery rays. In this distress Kadru, their mother, prayed for rain. Her prayer was heard and the

serpents were soothed by a refreshing shower. Divested of allegory all this clearly indicates the end of the reign of darkness and the flight of the offspring and ministers of darkness to Nágálaya, a place never visited by human beings. The scorching of the serpents in the rays of the sun shows that the sun was on the point of rising.

The reign of darkness and of the serpents ended, Garurha could no longer be held in bondage by them. But the astronomical poet of the Mahabharata sets him free on the condition that he must secure for the serpents *amrita* or celestial nectar which gave immortality to him who drank it. On being driven into Nágálaya by the rising sun the serpents feared lest they should die out, that is to say, lest there should be no darkness at all but only light. It was this fear which led them to make the above contract with Garurha so that they might become immortal by drinking *amrita*. This brings us to the *third part of the circumpolar year, a succession of ordinary days and nights*, occurring at the time of the Spring Equinox. At the beginning of this period of ordinary nycthemerons the night greatly prevails over the day, in other words, the night is much longer than the day. The sun would be at first seen for an hour or so. But gradually the day

would increase and the night decrease in length, till at the Spring Equinox they became equal. After that the day would begin to prevail over the night, till, at last, there was a complete cessation of night and the long continuous day, the *fourth part of the circumpolar year*, began. So we see that at the beginning of the period of ordinary nycthemerons at the time of the Spring Equinox, the serpents are still powerful enough to extort an advantageous contract from Garurha. True to his word, Garurha ascends the Heaven, fights with the gods and obtains the *amrita*. This part of the legend is so eloquently described by the great bard, bringing the endless resources of his fertile imagination to be massed upon it, that the reader is apt to be completely overpowered by its beauty and majesty. But he who knows the differentia of the circumpolar year finds no difficulty in tracing his path through this maze of gorgeous delineation and *clearly* sees that it is only a representation of the struggle between light and darkness in the *third* part of that year. We shall discuss later on the great astronomical truths which lie hidden in this fight between Garurha and the gods for the possession of *amrita*. Getting possession of *amrita* Garurha hastens to the serpents, and on the way meets Vishnu.

After an exchange of blessings Garurha condescends to become Vishnu's *vahan*. At the same time Indra meets Garurha and his thunderbolt proving ineffectual against the bird, sues for peace. Garurha gives him permission to steal the pot of *amrita* from where he would place it before the serpents. And we know that Indra acted accordingly and the serpents were deprived of the drink that immortalises. Deprived of *amrita* the only thing which could keep the serpents alive, they gradually became weaker and weaker. It is the Spring Equinox which marks the commencement of the stage in which the day gradually gains over the night. And we have seen that it was at this time that Garurha met Vishnu and consented to become his *vahan*. Vishnu, therefore, represents here the sun-god of the Spring Equinox, that chief among the gods of the Hindu pantheon who, standing at the point of meeting of the *Pitriyána* and the *Devayána* paths, covers and protects the upper, middle and nether worlds with his three feet.

CHAPTER II.

ARIES AND PEGASUS.

In the preceding chapter we have explained the legend of Garurha on the Arctic Theory without any help from outside, and the manner in which its details have yielded meanings in agreement with the facts of that theory is enough to prove the correctness of the latter. In this and the subsequent chapter we shall try to explain the great astronomical truths or facts which lie disguised in the legend. In considering ancient astronomy and chronology the great astronomical fact which is of primary importance is the *Precession of the Equinoxes*. It is with the aid of the precession of the equinoxes that astronomers and geologists have been able to prove the Ice Age and explain the former existence of human habitation in the arctic region in inter-glacial periods. The ecliptic is inclined at an angle of about $23\frac{1}{2}^{\circ}$ to the plane of the equator. The distance on the celestial sphere between the pole of the ecliptic and that of the equator is, therefore, about $23\frac{1}{2}^{\circ}$. It is this distance which is the radius of the arctic zone with the pole of the equator as centre. This pole of the equator has a motion of its own. It describes a circle on the celestial sphere with a radius of $23\frac{1}{2}^{\circ}$ round the pole of

the ecliptic which for our present purpose can be considered as fixed. This circle is completed once in every 25,868 years. The shifting of the pole of the equator thus caused gives rise to a corresponding shifting of the equinoxes west-ward or in the direction of the hands of a clock. The equinoxes, consequently, make a complete revolution through the signs of the Zodiac in every 25,868 years. But the Zodiac is divided into 360° . The equinoxes, therefore, travel through one degree of the Zodiac in $25,868 \div 360$, or about 72 years. This is, in short, what is called the *Precession of the Equinoxes*.

When the present Hindu solar calender was first fixed, the Spring Equinox was in the first point of Aries. Since then it has shifted through the entire length of a sign and now lies among the stars of Pisces. Similarly, the Winter Solstice is now in Sagittarius instead of in Capricornus, the Autumnal Equinox in Virgo instead of in Libra and the Summer Solstice in Gemini instead of in Cancer. This brief account of the precession of the equinoxes is given here in order to enable the reader to follow the subsequent discussion without difficulty.

In the preceeding chapter we promised to give a detailed explanation of that part of the legend of Garurha in which the

laying of the wager between Vinata and Kadru is described. The wager was laid on the colour of the tail of Uchchaihsrava, the celestial horse of Indra. Let us, therefore, enquire what Uchchaihsrava was. In the Mahabharata it is simply stated that this celestial horse rose out of the ocean when the latter was churned by gods and demons. We are, therefore, obliged to seek elsewhere for more information on the subject. In the Greek Mythology Zeus takes the place of Indra of Hindu Mythology. The word Zeus is the same word as the Sanskrit *Dyaus* meaning the sky. Zeus is, therefore, like Indra, a sky-god, and has a horse named Pegasus, the famous winged horse of Greek Mythology. Pegasus is born of Poseidon, the Greek God of Ocean. Dr. Smith, in his *Dictionary, of Roman and Greek Biography and Mythology*, says that this horse of Zeus "obtained the name of Pegasus because he was believed to have made his appearance near the sources of Oceanus." The Encyclopædia Britannica thus comments on the point :—"The name is from *Pegós*, 'compact, stout.' The erroneous derivation from *Pegé*, a spring of water, may have given birth to the legend which connects Pegasus with water, as that his father was Poseidon, that he was born at the springs of ocean (like the fabulous Indian horse Uchchaihsrava, prototype of

horses, produced at the churning of ocean,) and that he had the power to make springs gush from the ground by a blow of his hoof." I shall not discuss the derivation of the world Pegasus. My purpose here is to examine the legends which have grown round that "winged", "thundering" horse of Zeus and see if these legends have points in which they resemble the legend of Uchchaihsrava. The Greek bards often associated Pegasus with the Muses. Dr. Smith says, "When the nine Muses engaged in a contest with the nine daughters of Pierus on Mount Helicon, all became darkness when the daughters of Pierus began to sing; whereas during the song of the Muses, heaven, the sea and all the rivers stood still to listen and Helicon rose heavenward with delight until Pegasus, on the advice of Poseidon, stopped its rising, by kicking it with his hoof, and from this kick there arose Hippocrene, the inspiring well of the Muses, on Mount Helicon." The following points are presented in this legend:—(1) The contest between the Muses and the daughters of Pierus; (2) the prevalence of darkness during the song of the daughters of Pierus; (3) heaven, the sea and all the rivers ceasing to move in order to hear the song of the Muses; (4) the rise of Helicon during the song of the Muses; (5) Helicon's rise stopped by a kick from

Pegasus; and (6) the gushing out of the well of the Muses from this kick. Do not these suggest a contest between light and darkness? In section (2) of the legend it is distinctly stated that darkness prevailed during the song of the daughters of Pierus, and the conditions prevailing during their song are contrasted with those prevailing during the song of the Muses. We may not, therefore, be wrong if we infer that "whereas" darkness prevailed during the song of the daughters of Pierus, light prevailed during the song of the Muses. The character of the Muses as Goddesses of song in older Greek Mythology and as Goddesses of all the fine arts in later Greek mythology also favours the idea that they flourished during the prevalence of light. Can inspirers of music and poetry be associated with darkness? The Muses again are the daughters of Zeus, the sky-god or sun-god. As to their number, authorities greatly differ. In the most ancient Greek Mythology the number is often one and generally three, and Dr. Smith informs us that in some accounts it is spoken of as four, seven or eight. According to the *Encyclopædia Britannica*, "the number nine is the invention of a later time and of a different order of thought, and some accounts speak of three Muses or of a single Muse." Whatever the number may be, it is

evident that *subjectively* the Muse or Muses represent the light of intellect. Most probably the number was one when she was the Goddess of Music only, but when she was made to represent the light of all the fine arts the number increased according as the fine arts developed in Greece. We have entered into this discussion because the reader may ask, if the Muses represent light, whether physical or intellectual, why should their number be fixed at nine? And we have shown that there need be no such misgiving in the reader's mind as the number had really no fixity. So far the legend of the contest between the Muses and the daughters of Pierus is clear enough—the former representing light and the latter darkness, or, to avoid discussion the former singing or flourishing during the prevalence of light and the latter during the prevalence of darkness. Section (3) of the legend presents some difficulty. It is said that heaven, the sea and all the rivers ceased to flow in order to hear the song of the Muses. what does this cessation of the flow of waters mean? A reference to the Vedic Mythology will throw much light on the point. Cessation of the flow of waters and their release by Indra constitute one of the most important legends contained in the Rig Veda. Vritra, the enemy of the gods, confines the waters and the sun,

immersing the world in darkness. Indra kills the demon and sets them free, and the world again sees light. Macdonell in his *Vedic Mythology* says, "With the liberation of waters is connected the winning of light, sun and dawn. Indra won light and the divine waters." This struggle between light and darkness is obviously the thing that is portrayed in the Greek legend. Section (4) of the legend which speaks of the rise of Helicon at the time when heaven, the sea and all the rivers ceased to flow also supports this conclusion, because it is also explained by the same Vedic legend, in which Vitra is said to have confined the waters within a mountain from which Indra liberated them by piercing it. Interpreted in this way the Greek legend means that the sea and all the rivers ceased to flow in consequence of the rise of Mount Helicon and that Pegasus released them by piercing the mountain with a kick. The rivers, again, have their counterpart in the Saptasindhavah or seven rivers, the name by which the celestial waters are sometimes called in the Vedic Mythology. Mr. Tilak has, in a masterly chapter on the subject in his *Arctic Home in the Vedas*, proved that "captive waters were the aerial waters in the nether world, and that this captivity represented the annual struggle between light and darkness in the original home of the Aryans in the Arctic

region." At this stage of our enquiry, one of the objects of which is to test the Arctic Theory propounded by Mr. Tilak, we may not be justified in taking the above finding in its entirety, but all Vedic commentators agree that the captivity of waters and their release represent the struggle between light and darkness. In the Iranian Mythology or the mythology of the Parsis the Vritra legend is reproduced in almost all its details. This shows that the legend of the captivity of waters was the property of the Aryans before their final separation and dispersion over different parts of the globe. The Greeks, or, more properly, those who were afterwards known as such, took it with them to their new home. But their descendants forgot its true meaning and endeavoured to give it a poetic garb to suit their imagination and fancy. Thus arose the one inconsistency in the above Greek legend, in which it is said that heaven, the sea and all the rivers ceased to move and Helicon began to rise during the song of the Muses. According to the Vedic and Iranic Mythologies cessation of the flow of waters took place during the supremacy of darkness. But the Muses represent light. The inconsistency in the Greek legend, therefore, consists in making the waters cease to flow during the prevalence of light. The later Greeks, when they forgot that

the legend represented the struggle between light and darkness, could not reconcile themselves with the idea that the cessation of the flow of waters should be associated with the song of the daughters of Pierus, the opponents of the Muses whom they worshipped. To them the cessation of the flow of waters was a grand poetic effect which, they thought, could only be brought about by the enchanting and captivating song of the Muses. And this was perfectly natural among a people whose conception of the power of music was such that they ascribed to poet Orpheus the power of moving mountains and forests by the music of his lyre. If a mortal poet could do so much, what could not be done by the Muses, the very Goddesses presiding over music? Thus arose the one inconsistency in the legend which ascribed to the song of the Muses the effect which was originally connected with the song of the daughters of Pierus. There is another point in the legend which requires consideration and which has more direct bearing on our purpose here. In the Vritra legend of the Rig Veda or the Avesta it is Indra or Tishtrya who pierces the mountain which confined the waters and liberates them. But in the Greek legend it is Pegasus who does all this. In this, however, the poetic and artistic genius of the Greeks does not seem to have led them astray. The idea of water flowing from the hoofs of the

celestial horse was not strange to the Vedic Rishis. In R. V., I, 116, 7 the Asvins are addressed thus, "Ye poured forth from the hoof of your strong charger a hundred jars of wine as from a strainer."—Again, in R. V., I, 117, 6 it is said, "When from the hoof of your horse ye showered a hundred jars of honey for the people." The similarity between this and the Greek description of the exploit of Pegasus is too palpable to be mistaken. Again, in the above verse the celestial horse is said to have belonged to the Asvins. In the preceding verse 6 of the same hymn the horse is said to have been given by the Asvins to Aghasva. We shall quote the verse :—

"The white horse which of old ye gave Aghasva, Asvins, a gift to be his wealth for ever,—

Still to be praised is that your glorious present, still to be famed is the brave horse of Pedu".

In R. V., I, 163, 2, however, Indra is said to have ridden the horse, "This steed which Yama gave, hath Trita harnessed, and him, the first of all, hath Indra mounted." The Asvins were among the chief helpers of Indra in the struggle for the restoration of light and liberation of the captive waters. No wonder, therefore, that the celestial horse is said to have been ridden by both the Asvins and Indra during that struggle.

And there is a special appropriateness in making the waters flow from the hoof of the horse when he was in the possession of the Asvins, the gods presiding over the dawn. In Greek Mythology also Pegasus is sometimes described as the horse of Eos.

The above shows that the conception of the winged, thundering horse of Zeus in Greek Mythology is analogous to that of the horse of Indra and the Asvins. The fact that both of them are represented as making the waters flow from their hoofs establishes their identity beyond doubt or dispute. In R. V, I, 116, 6 quoted above the horse is called "the horse of Pedu." Professor Max Muller, in his *Contributions to the Science of Mythology*, says, "the idea that the Asvins gave such a horse (white) to Pedu or that they themselves possessed such a horse, occurs again and again." The reader will here note the philological similarity between the word "Pegasus" and the expression "Pedu's horse." The putting of a *g* after *d* frequently occurs in the variations of words of the Aryan family, as in hedge, wedge, sledge, &c. This *d* is sometimes omitted leaving only the *g* as in *oblige* which was formerly spelt as *oblidge*. The word "Pegasus" may thus have been derived from Pedu+asva (sanskrit for horse), or it may have some connection with the word "Aghasva," Aghasva being the

person to whom the Asvins are said to have given the horse (R. V., I., 116, 6). But this is only a suggestion and may not be well founded. The identity of the celestial horses mentioned in the Greek and Vedic mythologies depends not on the names which they respectively bear in them but on the character which is attributed to them. Even in Hindu Mythology one and the same name is not used everywhere. The expression "Pedu's horse" or the word "Paidva," as the white horse is sometimes called in the Rig Veda, is nowhere found in the Mahabharata, in which it is invariably called Uchchaihshrava which means, with "picked-up ears or with glory on high." On the other hand, the word Uchchaihshrava is nowhere to be found in the Rig Veda, although it may be said, that the expression "still to be praised is that your glorious present," may have suggested the name to later writers about the horse. However that may be, the difference in the names used does not preclude the student from identifying the celestial horse of Indra in the Mahabharata with the celestial horse of Indra and the Asvins in the Rig Veda. The vicissitudes through which the Aryan languages have passed as ages have rolled by may have entirely changed the forms and aspects of many words and expressions, although the ideas and legends which were associated

with them from the earliest times have been left almost unaltered.

The identity of Pegasus, Uchchaihsrava and the celestial horse described in the Rig Veda established, we are prepared to examine its astronomical bearing on the Garurhopakhyanam. Now, Pegasus is a striking constellation in the heavens Dr. Smith says, "later writers describe him as the horse of Eos and place him among the stars as the heavenly horse." We have in this essay neither the space nor the intention to discuss when the heavenly constellations were first studied and the present imaginary names and shapes were attributed to them, and how all civilised nations, ancient and modern, the Medians, the Babylonians, the Egyptians, the Romans, the Greeks, the Parsians, the Indians, &c., happened to give the same names and shapes to the ancient constellations. We shall only point out that the astronomies of all the civilised nations of the ancient world bore a striking resemblance to each other in almost all respects. It will be no wonder, therefore, if we find a counterpart, an exact image, of the Greek constellation Pegasus in Uchchaihsrava. In the following discussion we shall use the name Pegasus and Uchchaihsrava indiscriminately according to our convenience. In the preceding chapter we came to the conclusion that the blacken-

ing of the tail of Uchchaisrava marked the beginning of the long period of darkness in the Mahabharata legend. We shall now enquire whether this conclusion is supported by a consideration of the constellation Pegasus at that time. We have said before that when the current Aryan calender was first fixed the Winter Solstice was in Capricornus, but that, on account of the Precession of the Equinoxes, it now occurs in the stars of Sagittarius. About 4000 B. C. it was in Aquarius. Now, Pegasus is a few degrees to the east of Capricornus. During the sun's stay in Capricornus a time comes when after sun-set the constellation that is first seen in the western horizon is Pegasus with its tail below the horizon, *i. e.*, invisible or darkened. In London this annual astral phenomenon occurs at present about the 19th of February. But about 4000 B. C. it occurred about a month before the Winter Solstice, because the Winter Solstice was at that time in the stars of Aquarius. And we have shown before that in lat about $69^{\circ}51'$ the long continuous night begins one month before the Winter Solstice. Therefore, to an observer in lat. about $69^{\circ}51'$ about 4000 B. C. the tail of Pegasus would be darkened at the beginning of long continuous night. The Mahabharata legend says that the enslavement of Vinata or the continuous sway of darkness began with

the darkening of the tail of Uchchaihsrava. The legend, therefore, preserves an account of an astronomical phenomenon relating to the constellation Pegasus which occurred in lat. about $69^{\circ}51'$ about 4000 B. C.

In the Rig Veda there are full two hymns, R. V, I, 162 and 163, addressed to the celestial horse. We shall quote such portions of these hymns as are necessary for our purpose which is to point out the astronomical references contained in them.

R. V., I, 162. —

2. What time they bear before the courser, covered with trappings and with wealth, the grasped oblation,

The dappled goat goeth straight forward, bleating, to the place dear to Indra and to Pushan.

3. Dear to all gods, this goat, the share of Pushan, is first led forward with the vigorous courser,

While Tvashtar sends him forward with the charger, acceptable for sacrifice, to glory.

R. V., I, 163.

1. What time, first springing into life, those neighedst, proceeding from the sea or upper waters,

Limbs of the dear hadst thou and eagle pinions. O steed, thy birth is high and must be lauded.

2. This steed which Jama gave hath Trita harnessed, and him, the first of all, hath Indra mounted.

His bridle the Gandharva grasped.
O Vasus, from out the sun ye fashioned forth the courser.

3. Yama art thou, O horse; thou art Aditya; Trita art thou by secret operation.

Thou art divided thoroughly from Soma. They say thou hast three bonds in heaven that hold thee.

We shall first discuss the first of these hymns, and shew that it describes certain astronomical conditions which obtained in latitude about $73^{\circ}40'$ about 4000 B. C. when the Winter Solstice was in Aquarius.* But the reader is requested to bear in mind that although we shall constantly speak of 3 months' continuous darkness we shall mean constant darkness of 3 to 4 months in extent. In $73^{\circ}40'$ latitude the horizon is inclined at an angle of about $16^{\circ}20'$ to the equator. And the long continuous night extends over nearly three months, which are the months containing the Winter Solstice and the two months preceding and succeeding it. But about 4000 B. C.

* In fig. I let $c=45^{\circ}$.

$\therefore L \sin a + 10 = L \sin 45^{\circ} + L \sin 23^{\circ}27'$

$= 9.8494850 + 9.5998270$

$= 19.4493120$

$\therefore L \sin a = 9.4493120$

$\therefore a = 16^{\circ}20'$ approximately.

the Winter Solstice occurred in the last stars of Aquarius. The three months of continuous night in latitude about $73^{\circ}40'$, therefore, began shortly after the sun had entered the first stars of Capricornus and ended shortly after it had entered the small constellation Aries, as the Winter Solstice was to mark the middle point of the period.

Now, the first stars of Capricornus and the first stars of Aries are separated by a few hours of right ascension, so that a few hours after the sun had set not to rise again for three months, Aries would rise and describe almost the same path as had been described by the sun. Gradually as the sun would travel through the stars of Capricornus, Aquarius and Pisces, the difference of right ascension between the sun and Aries would diminish, until at last it entirely vanished and the sun rose in the stars of Aries. And this motion of the invisible sun would be very properly attributed to Aries as that it moved to meet the sun. This is what the poet describes so beautifully as "the dappled goat goeth straight forward, bleating, to the place dear to Indra and Pushan." According to Sayana Pushan here stands for Agni. Agni is a maternal deity and, as the deity presiding over the heat energy of the universe, often stands for the sun in Hindu Mythology.

“What applies to Surya or the sun applies to Agni as well; for there are many passages in the Rig Veda where Agni is identified with the sun.” And throughout the Rig Veda Indra is represented as the chief friend of light and enemy of darkness. “The place dear to Indra and Pushan” is, therefore, the place where the sun would rise in the eastern horizon. The expression, “dear to Indra and Pushan,” has, moreover, a special application to the place of the first appearance of the sun after Indra has delivered him from the bondage of Vritra, the place where the golden boat of Pushan reaches the land after crossing the ocean of darkness. “The dappled goat goeth straight forward, bleating, to the place dear to Indra and Pushan,” therefore, means, in its astronomical bearing, that the goat, or *mesha*, or the constellation Aries, moves towards the place where the sun will rise after the long continuous night has ended. Again, the goat is described as “the share of Pushan” and is said to be sent forward “acceptable for sacrifice, to glory”: “Pushan” stands for the sun and “glory” means the splendours of daylight. The above epithets of the goat, therefore, mean that it is sent forward towards the splendours of daylight as a sacrifice to the sun. What is meant by the goat being sent towards the splendours of daylight should be clear from

what has been stated above. But why is it called a sacrifice to the sun? The answer is easily found on the supposition that the Vedic Rishi was describing a striking astronomical phenomenon which was visible about 4000 B. C. in latitude $73^{\circ}40'$. When the Winter Solstice was in the last stars of Aquarius, the constellation *Aries* had a south declination, and to a person standing in that latitude in that ancient time it never rose far above the horizon, its stars resting on or being close to the horizon when its position was highest above it. The duration of the asterism above the horizon was also very short for the same reason. And during the three months' continuous night the constellation was visible above the horizon for some time every day or, rather, every 24 hours. But the time of its appearance above the horizon changed from sunset to sunrise till, at last, when the sun rose above the horizon after three months' continuous night it rose in the first stars of Aries. Gradually as the sun moved forward in the ecliptic from Aries to Taurus, from Taurus to Gemini and so on, Aries rose after sunrise and set shortly after, and was, consequently, invisible. How beautiful and apposite is the Rishi's description of this astronomical phenomenon as the going forward of the goat, acceptable for sacrifice to glory in the place dear to Indra and Pushan;

and the description is given in words so plain that an astronomical observer in that ancient time could not possibly miss or mistake its import. We shall now see what connection the celestial horse has with the above phenomenon relating to Aries. In the verses under discussion the goat is said to be borne "*before the courser*" and, again, as "led forward with the vigorous courser." The stars of Aries and the lower part of the body of Pegasus have almost the same North Polar Distance. But the head of Pegasus has a smaller North Polar Distance than the stars of Aries. Again, on the celestial sphere Pegasus is situated west of Aries. All this shows that when the small constellation Aries rose after the sun had set, Pegasus had already risen and was approaching its setting point with its base on the horizon and its vertex a few degrees above it. And as Aries would advance to meet the sun, Pegasus too would do the same, keeping its distance from Aries constant. This is the astronomical phenomenon which the Vedic Rishi described as the goat borne "before the courser," and as Pegasus is a much bigger constellation than Aries, the goat was said to be led forward with the *vigorous* courser. All the facts described in verses 2 and 3 of the 162nd hymn of the 1st Mandala of the Rig Veda are thus

fully explained from the astronomical point of view.

To turn to the verses of the next hymn, R. V., I, 163, also quoted above. Addressing the celestial horse verse 1 says, "What time first springing into life, thou neighedst, proceeding from the sea or upper waters." The expression "proceeding from the sea or upper waters" requires explanation. Vedic astronomers used to divide the celestial sphere into two parts, through which the sun's upper and lower courses lay. They are called *ubhau ardhan* (the two halves) or *ubhau samudrau* (the two seas), and are differentiated into *avara* (upper) and *para* (nether). The present verse contains a reference to the upper sea. We have distinct references to the nether sea also in the Rig Veda, as in VIII, 12, 17 in which the words used are *paravati samudre*. In R. V., I, 164, 17 "the cow with her calf (the dawn with the sun) is described as having appeared below the upper and above the lower realm." This shows that the celestial sphere was divided in such a manner that one of its parts held the sun during the long continuous night, whilst the other held it during the remainder of the year. And it was only natural that a people, living in the midst of the striking conditions of the arctic region, should have imagined that during the long continuous night

the sun was hidden in an ocean below their horizon. Considered astronomically the ecliptic may be regarded as representing the two seas, its lower part in which the sun moves during the long continuous night representing the nether sea and the remainder the upper sea. According to what we have shown above the nether sea, in latitude about $73^{\circ} 40'$ about 4000 B. C., would extend from Capricornus to Aries in the south and the upper one from Aries to Capricornus in the north. Now, Pegasus also being, like Aries, a south constellation, could be seen for a short time only above the horizon of a person standing in latitude $73^{\circ} 40'$ about 4000 B. C. And what has been said above about the course of Aries applies also, with slight modifications, to the course of Pegasus. It would be seen about the western horizon when the sun set in Capricornus not to rise again for three months. The question may be here asked, why, if such is the case, is Aries alone called a "sacrifice to glory"? The answer is easily given. We have said above that Aries is separated from Pegasus by a few hours of right ascension, so that if the sun rises in the east in Aries, Pegasus will be at that time a few degrees to the west of the point of sunrise. It would, therefore, be visible for some days shortly before sunrise after the

sun had risen in the stars of Aries and before it itself was lost in the splendours of daylight. Besides this, the sun never rises in the stars of Pegasus as it does in the stars of Aries. This explains why Pegasus could not be called, like Aries, "the share of Pushan," a "sacrifice to glory." Now, from what we have said above it should be clear that the course of Pegasus was in the nether sea during the long continuous night and in the upper sea during the rest of the year. The Vedic Rishi, therefore, when he saw the constellation in about the western horizon at the time of sunset in Capricornus, correctly described it as "proceeding from the sea or upper waters."

The second verse says, "This steed, which Yama gave, hath Trita harnessed, and him, the first of all, hath Indra mounted.

His bridle the Gandharva grasped. O Vasus, from out the sun ye fashioned forth the courser."

According to Sayana Yama here stands for Agni, and after Agni Griffith adds, "as a solar deity." According to Max Muller Yama represented day or the sun, and Yami, his sister, represented night, and as sunset represented death to the ancient Rishis Yama came to be regarded as the death king, the ruler of Paraloka, the king of Pitries. Whether we take Yama to mean Agni as a solar deity, or to represent day, "this steed which Yama gave" clearly

expresses the idea that the constellation Pegasus became first visible in the evening after having been for a long time hidden by the sun or daylight, and means almost the same thing as "proceeding from the sea or upper waters." We shall not in this place enter into the controversy which has been raised over the word Trita among European commentators. That the word puzzled the Hindu commentators too is clear from the fact that Sayana explains it as, "पृथिव्यादिषु त्रिषु स्थानेषु वर्तमानः तीर्नतमो वा वाक्", which may be translated as, "the air or one who is present in the three regions beginning with the earth and has crossed over darkness." We do not know how the air can be said to have crossed over darkness, but it is clear that Sayana derives the word Trita from *tri* (त्रि) to cross. But in his commentary on R. V., I, 105 Sayana quotes "a story of the Shatyayanins giving the legend of three brothers called Ekata, Dvita and Trita, or, the first, the second and the third, the first two of whom threw the last, Trita, into a well from which he was taken out by Brihaspati," in which Trita is derived from *tri* (त्रि) or three. Max Muller explains this inconsistency by supposing that the name of the deity was originally Trita (त्रित) and not Trita (त्रित) and that the corruption of Trita (त्रित) into Trita (त्रित) took place long before the Aryan separation, as we have the Greek

Triton, the Zend *thrīta*, the old Irish *triath* and the old Norse *thrīdi*. According to Max Muller the Vedic Ekata and Dvita were only later inventions to fit in with the corrupted form Trita (त्रित), Trita (द्वत), the pure form of the word, meaning the "set sun." "This shows," says the author of the *Arctic Home in the Vedas*, "to what straits scholars are reduced in explaining certain myths in the absence of the true key to their meaning." This key, according to Mr. Tilak, is supplied by "the Arctic Theory or the theory of long darkness extending over nearly four months or a third part of the year," and Trita represents this third part of the year. This conclusion that has been arrived at by Mr. Tilak is supported by the astronomical conditions which we have sought to explain in the preceding pages. But whether Trita means the "set sun" or the period of long continuous darkness, it is enough for our present purpose to say that the harnessing of the steed by Trita and its first mounting by Indra mean, from the astronomical point of view, a description of the course of the constellation Pegasus during the long continuous night. We have also seen that as the sun set in the west not to rise again for about 3 or 4 months the brilliant constellation of the Horse was seen in about the same quarter. This is the astronomical fact to which the Vedic

Rishi refers as "from out the sun ye fashioned the courser."

The first half of verse 3 runs thus, "Yama art thou, O Horse ; thou art Aditya ; Trita art thou by secret operation." This description seems to have led the Hindu commentator Mahidhar to suppose that the Horse represented the sun, and Mahidhar has been followed by western commentators. Whether we take Yama to mean Agni as a solar deity, or day, "Yama art thou, O Horse ; thou art Aditya," obviously means, O Horse, thou art the sun. And if we take Trita to mean the "set sun" according to Max Muller, "Trita art thou by secret operation" also, at first sight, means the same thing. But is the description real or figurative ? Was the Horse really the sun, or the sun only metaphorically ? Mahidhar and western commentators say that he was really the sun. But this is inconsistent with the text. Why is the Horse said to be Trita by "secret operation" ? If he was really the sun, what "secret operation" could there have been for making him the "set sun" ? Again, in the preceding verse 2 the courser is said to have been "fashioned from out the sun". But how could the sun have been fashioned from out the sun ? In spite of these and other inconsistencies commentators were obliged to take the Horse to mean the real sun,

because a better explanation was not forthcoming. But these inconsistencies are fully removed by the astronomical explanation which we have given above. The horse is the constellation Pegasus as seen at latitude about $73^{\circ} 40'$ about 4000 B. C. and is figuratively described in various ways as, "this steed which Yama gave hath Trita harnessed," "fashioned from out the sun," "Yama art thou, O Horse ; thou art Aditya ; Trita art thou by secret operation," &c. The figure is distinctly implied by the words "secret operation."

"Thou art divided thoroughly from Soma."—Commentators have been unable to give any definite meaning to this expression. All their attempts to explain it have failed. It is failure which they themselves admit. Griffith, for instance, says, "meaning uncertain." Let us see whether it can be explained by astronomy, the astronomy of the place and the period we have indicated above. Now, when the sun is in Capricornus the full moon occurs in Cancer. As 30 days is the period of the sun's stay in a sign of the zodiac and also of the moon's synodic revolution round the earth, the latter passes through all its phases during the time that the sun travels through one sign of the zodiac. But to an inhabitant of the arctic zone all these phases are not visible, the phases which occur when the moon's diurnal path falls

completely below his horizon, once every 30 days, being invisible. For a rough calculation we can take the path of the moon to lie in the ecliptic. The moon's motion relative to the earth in the ecliptic is 12° every 24 hours, and the difference of time between its successive risings and settings at a place is about $\frac{24}{30}$ of an hour or about 48 minutes. Now, as the distance between Capricornus and Pegasus is small, the rising full moon will be at a distance of nearly 150° from the latter when the sun is in the former, and as, under the conditions of our enquiry, Pegasus would not be long above the horizon, the distance between it and the full moon would not be much diminished. Soon after the entry of the moon into Cancer, it would, for some 8 or 9 days, be continually visible above the horizon, all the time passing through its necessary phases. These phases would be near the phase of the full moon, so that the distance between them and Pegasus would never be short. After the period of its continuous visibility the moon would approach Pegasus and rise and set as usual in the tropical and temperate zones. A fixed star rises earlier by 4 minutes every succeeding day, and we have seen, that the moon rises later by about $48'$ every succeeding day from the full moon to the new moon. This shows that before the

moon would have sufficiently approached Pegasus, its crescent form would rise after the rise and set of Pegasus, till, at last, the new moon occurred in Capricornus. After this the moon would be totally invisible for 8 or 9 days during which period it would be below the horizon. After this period, again, the moon would, for 3 or 4 days, rise for only a very short time above the horizon, and, being to the west of Pegasus, would rise before it and approach the setting point towards the west. A long distance between it and Pegasus would thus be maintained. If we proceed to argue in this manner we shall see that the visible distance between the moon and Pegasus would never be greatly spanned whether the sun was in Capricornus, Aquarius, or Pisces, *i. e.*, during the period that Pegasus would be visible when above the horizon. Does not this explain the words of the Vedic poet, "Thou art thoroughly divided from Soma", Soma meaning the moon? So long, at least, as commentators are unable to supply a better explanation, it must be taken to be the only rational interpretation that the words can take.

CHAPTER. III.

THE EAGLE AND THE ARCHER.

The reader may remember that in the astronomical explanation of the Garurhopakhyanam given in the first part of this discourse Garurha was supposed to have been born at the Winter Solstice. Our scene is placed in latitude $69^{\circ}51'$ about 4000 B. C. Let us now see whether the astronomical conditions of this scene tally with the explanation given in relation to Garurha. Garurha means eagle and the Eagle or Aquila is a brilliant constellation in the heavens. About 4000 B. C. when the celestial North Pole was beyond α Draconis, the first stars of Aquila had almost the same meridian of rt. ascension as that of the first stars of Capricornus, and were consequently invisible at the beginning of the continuous night. For some time Aquila would be hid in the splendours of the sun setting in Capricornus and of the dazzling brilliant twilight following them. But when the sun had passed to Aquarius there would be enough distance between it and Aquila to make the latter visible. That was the birth of Aquila or the eagle of the Mahabharata legend. And as Aquarius marked the position of the sun at the time of the Winter Solstice, Aquila might be said to have been born at that time

of the year ; and as the birth of Aquila marked the middle of the long continuous night the ancient inhabitants of those northern regions might well hail it as a god destined to bring better days of light and life to them. For some time after its birth Aquila served the serpents, that is to say, the reign of darkness continued for some time after the brilliant constellation became first visible during the long continuous night. Then came the struggle for *amrita*, a point which we shall consider later on. Finally, the Eagle liberated its mother, light, from enslavement to darkness, that is to say, the long continuous night ended ; and after that, the mighty bird became the *vahan* of Vishnu. Now, this latter point, namely, the Eagle becoming the *vahan* of Vishnu, becomes at once clear if Vishnu is taken to be the sun-god of the Vernal Equinox. Between 3000 and 4000 B. C. the Vernal Equinox occurred in Taurus. And a spectator viewing the heavens in those days about the time of sunrise when the stars had not yet become invisible might see the south western horizon marked by a very brilliant star of the 1st magnitude, the Altair of the Aguila, and might well consider the constellation to have become the *vahan* of Vishnu, the sun-god. It would set and bring light into the world.

Having thus far considered the place of the

Eagle in the Garurbopakhyanam let us see what the Vedic Rishis have to say on the subject. The Eagle and his exploits are described in many a hymn of the Rig Veda. The identity of Garurha with the Eagle or Falcon of the Rig Veda has been recognised by Prof Max Muller. In his *Contributions to the Science of Mythology* he says:—

“In Rig Veda 1, 164, 46, it is evidently the sun that is called *divyah suparnah Garutman* the heavenly bird Garutman, and in X, 149, 3, this same Garutman is called the bird of Savitri, the sun. If, as we can hardly doubt, the later Garurha is the same word, we find in him the bird on which Vishnu is supposed to ride. At his birth he was supposed to be Agni and was praised as the sun. Nor does it seem to require much imagination to speak of the sun as a bird.” According to Sayana Garutman is the brother of Garurha. It was a sad day for India when the commentators of the great, wise and learned Vedic Rishis, who lived a life of divine simplicity and communed with nature, lost the clue to the import of their sublime hymns and had to draw on imagination or fancy to give them the most fantastic and arbitrary constructions, thereby shrouding them in such mystery that they looked hoary and holy from a distance but were seldom read to any useful purpose. The loss of the astronomical clue to the legends about

Garurha has led learned commentators like Max Muller and Sayana to consider the simple and practical Vedic Rishi as a visionary or else to put a most arbitrary meaning on his words by taking Garutman to be the same person as the sun or the brother of Garurha. Garutman is called *suparnah* or nice-feathered. This adjective *suparnah* is converted into a substantive by the author of the Garurhopakhyanam in the Mahabharata and is made one of the names of Garurha. How this transformation was effected we shall consider as we proceed further. In the Rig Veda the principle exploit of the Eagle or Falcon is to conquer the soma and give it to Indra. We shall, therefore, first explain what is meant by soma in the Rig Vedic hymns. In ordinary sanskrit literature the word soma means the moon. But according to the Vedic commentators it always means in the Rig Vedic hymns a plant, the juice of which is drunk by gods, by Indra in particular, for refreshing themselves for the great contest with Vritra. We have no doubt that many of the Rig Vedic Soma Pavamana hymns were chanted during the performance of some ancient rite of the Hindus and that some terrestrial plant, which they called soma, was used in it. But this does not preclude us from thinking that this rite symbolised certain great and unique astronomical facts which obtained in the circumpolar habitations of the

ancient Aryans but the existence of which was forgotten by their later descendants. Explained by astronomy soma in the Vedic hymns means moon, and this meaning will be evident to any one considering the hymns from the astronomical point of view. Mr. Plunket, in his *Ancient Calendars and Constellations*, says, "It is admitted that in post-Vedic literature soma is a regular name of the moon, which is regarded as being drunk up by the gods and so waning. Some writers point to the possibility that even in the Rig Veda 'in the soma hymns there may occasionally lurk a veiled identification of ambrosia and the moon, but, on the whole, with the few exceptions generally admitted, it appears to be certain that to the seers of the Rig Veda the god Soma is a personification of the terrestrial plant and juice.' One German writer, Hillebrandt, very strongly upholds that soma in the Rig Veda 'often personifies the moon,' and especially according to him, is this the case in the 114 hymns of Mandala IX, all addressed to Soma Pavamana, or purified soma, prepared for and quaffed by Indra to invigorate him for the Vritra contest. That soma in the Rig Veda is primarily the moon and that the moon is symbolised and always more or less directly referred to in the Vedic hymns to soma, fits in, as must be evident to the readers of this paper, with the astronomic theories advocated in it."

Before entering into a consideration of the Vedic hymns which we intend to explain in this chapter, we shall briefly explain the movements and appearances of soma or the moon in relation to the conditions of the circumpolar region in ancient ages, say about 4000 B. C. To an observer in the circumpolar region the moon remains constantly invisible for some days in every lunar month when it moves in that portion of its path round the earth which is below the horizon. Roughly speaking, this portion of the moon's path coincides with that portion of the ecliptic which when traversed by the sun causes the long continuous night. On the other hand, during the moon's passage through that part of the ecliptic, which when traversed by the sun causes the long continuous day, the satellite remains for some days constantly above the horizon of the polar man, all the time passing through its necessary phases. Now, when the sun is in the first stars of Cancer the full moon occurs in the first stars of Capricornus. And in lat. $73^{\circ}40'$ about 4000 B. C. only the first stars of Capricornus were visible very close to the horizon, and hovering over these faint stars was the brilliant constellation Aquila, which has a lesser North Polar Distance than Capricornus and which was in that ancient time in almost the same meridian of right ascension as the first stars of Capri-

cornus, with its talons extending as far as those stars and its bright eye, the Altair, looking triumphantly around. Again, the long continuous day of that latitude began during the sun's passage through the first stars of Cancer. The beginning of the long continuous day and the occurrence of the full moon in the first stars of Capricornus and clutched and captured, as it were, in the talons of the Eagle were, therefore, contemporaneous events. It was this phenomenon which the ancient sages called *the conquest of soma*. Imagination can but faintly paint the beauty and grandeur of the situation when during a period of constant sunshine lasting for months together, the moon, shorn of its silver rays and rendered pale and lustreless, followed its daily path in the heavens with all its phases like a man who has lost every drop of his blood and looks ghastly bloodless. Well might the Vedic bard who lived in the Arctic region say that the moon had been conquered and its juice extracted and given to Indra as an invigorating draught during his fierce struggle with Vritra, the arch-demon of darkness.

Let us now examine, one by one, some of the Rig Vedic hymns in which the exploits of the Eagle are described.

R. V., IV, 26.

3. In the wild joy of soma I demolished

Sambara's forts, ninety and nine together, and, utterly, the hundredth habitation, when helping Divodasa Atithigva.

4. Before all birds be ranked this Bird, O Maruts ; supreme of falcons be the fleet-winged Falcon,

Because, strong-pinioned, with no car to bear him, he brought to Manu the God-loved oblation.

5. When the bird brought it, hence in rapid motion sent on the wide path fleet as thought he hurried.

Swift he returned with sweetness of the soma, and hence the Falcon hath acquired his glory.

6. Bearing the stalk, the Falcon speeding onward, Bird bringing from afar the draught that gladdens,

Friend of the Gods, brought, grasping fast, the soma which he had taken from you loftiest heaven.

7. The Falcon took and brought the soma, bearing thousand libations with him, yea, ten thousand.

The Bold One left 'Malignities behind him, wise, in wild joy of soma, left the foolish.

Elucidation—3. The speaker in this hymn is Indra. The number hundred refers to the length of the long continuous day, lasting for one hundred twenty-four hours. Sambara's forts are forts in which the sun is confined

during night. To "demolish Sambara's forts," therefore, means to remove the cause of the sun being confined during night, or, in other words, to prevent the occurrence of night and cause the sun to remain constantly above the horizon. "In the wild joy of soma" means invigorated by nectar shed by or drawn out of the moon after its conquest by the Eagle. Verse 3, therefore, means—Indra, invigorated by drinking lunar nectar, freed the sun from the bondage of night for one hundred days, or, in other words, the sun shone constantly above the horizon for one hundred days.

4. This verse is only descriptive of the Eagle's great strength.

5. This verse describes how the Eagle conquered soma or the moon, how before the full moon occurred in the clutches of Aguila, Aguila had started towards it with a relative speed almost equal to 13° per diem (12° of the moon from west to east and 1° of the constellation from east to west).

6. "The soma which he had taken from yon loftiest heaven"—this is a remarkable passage as it proves that soma was a heavenly body. "Yon" is very expressive. It brings to the reader's mind the beauteous vision of some Vedic sage, some great child of nature, standing in the midst of the grand northern sceneries and pointing to that part of the heavens where the full moon occurred.

7. "The Bold One" is the Eagle. "Malig-nities" refers to darkness.

R. V., IV, 27.

1. As I lay within the womb, considered all generations of these Gods in order. A hundred iron fortresses confined me, but forth I flew with rapid speed a Falcon.

2. Not at his own free pleasure did he bear me : he conquered with his strength and manly courage.

Straightway the Bold One left the fiends behind him and passed the winds as he grew yet more mighty.

3. When with loud cry from heaven down sped the Falcon, thence hasting like the wind he bore the Bold One.

Then, wildly raging in his mind, the archer Krisanu aimed and loosed the string to strike him.

4. The Falcon bore him from heaven's lofty summit as the swift car of Indra's friend bore Bhujyu.

Then downward hither fell a flying feather of the Bird hasting down in his journey.

5. And now let Maghavan accept the beaker, white, filled with milk, filled with the shining liquid ;

The best of sweet meath which priests have offered, that Indra to his joy may drink, the

Hero, that he may take and drink it to his rapture.

Elucidation.—The speaker is Agni. Here, as in many other places in the Rig Veda, Agni stands for the sun. The hymn begins with a reference to the long continuous night.

“Womb” is the womb of darkness or the nether waters.

“Considered.....order’”—to find out a liberator.

“A hundred iron fortresses” refers to the duration of the long continuous night which, like the long continuous day of the same place, lasted for one hundred 24 hours.

“I flew.....Falcon”—This refers to what we have explained before as the birth of the Eagle during the long continuous night.

2. This verse says that the Eagle had to struggle hard against the demons of darkness before he could bear the sun, or, in other words, some time elapsed after the birth of the Eagle before the sun became visible. “Bold one” is the Eagle. “Me”—commentators have referred “I” of verse 1 to Agni and “me” of verse 2 to soma, but have not assigned any reason for this change. In the absence of the astronomical clue to the verses they explained “womb” as rain-clouds. They were, therefore, forced to make the above change, because they could not make out how the Falcon could bear Agni

lying within rain-clouds. But our astronomical theory gives the natural construction to both the verses and refers both "I" and "me" to Agni or the sun.

"As he grew yet more mighty"—This shows that although the Eagle had succeeded so far as to bear the sun out of a state of complete captivity, he was not strong enough to expel the demons of darkness completely from the field.

3. "When"—after he had grown more mighty.

"From heaven.....Bold One"—This is what we have explained before as the full moon in the talons of Aquila at the beginning of the long continuous day. "The Bold One" here is the moon. This expression is simply an adjectival substantive and has been indiscriminately used, as the reader must have noticed, for Indra, the Eagle and the moon.

"The archer Krisanu.....to strike him"—The archer is the constellation Sagittarius (Sanskrit—Dhanu)lying south-west of Aquila, so that if Altair is taken to be the eye or head of Aquila Sagittarius will be behind the constellation just in the position to shoot an arrow against it. The Vedic sage thus marks the position of Sagittarius and his poetic genius makes him fancy the heavenly Archer loosening the string of his bow and sending an arrow after the redoubtable Eagle as he was

carrying away the moon. Among Western commentators one at least, Mr. Plunket, has noticed this point, and he takes the small constellation Sagitta (arrow) lying between Cygnus and Aquila to be the arrow referred to in the hymn. He says, "In one hymn especially devoted to the legend of soma-bearing Eagle (or hawk), allusion to the small well-marked-out constellation Sagitta (the Arrow) may be detected." It is not my purpose here to discuss whether this small constellation was known by its present designation Sagitta to ancient Hindus, or, whether it can be considered as an arrow shot by Sagittarius and imbedded in the flank of the Eagle. I shall simply point out to the reader that the Vedic passage, "The Archer Krisanu aimed and loosed the string to strike him," is doubtless the origin of that part of the Mahabharata story in which Indra is said to have thrown his mightiest weapon, the thunder-bolt, against Garurha while he was carrying away the *amrita*.

4. "The Falcon bore him from heaven's lofty summit"—The same as "The soma which he had taken from yon loftiest heaven," explained during our consideration of the last hymn quoted (IV. 26).

"Then downward hither fell.....journey"—This passage is the origin of that part of the Mahabharata story in which Garurha is said to have

let fall one of his feathers in honour of the great thunderbolt of Indra. And it was evidently a consideration of this passage along with the expression “divyah suparnah Garutman” (R. V., I, 164, 46) which led the poetic author of the Mahabharata legend to give to the heroic bird the name of Suparna.

5. This verse shows that there actually existed, among ancient Hindus, a ceremony based on the astronomical conditions explained above.

“The beaker, white, filled with milk,” “the best of sweet meath which priests have offered”—These show that even if the juice of some terrestrial plant called soma was used in the Vedic ceremony, milk and other things formed at least the principal part of the oblations offered in it by priests to Indra.

R. V., IV, 28.

Allied with thee, in this thy friendship, soma,
Indra for man made waters flow together.

Slew Ahi and sent forth the seven rivers, and
opened, as it were, obstructed fountains,

2. Indu, with thee for his confederate,
Indra swiftly with might pressed down the
wheel of Surya.

What rolled, all life's support, on heaven's
summit was separated from the great oppressor.

Elucidation —This hymn is very interesting

in as much as, by means of a few simple expressions, it throws a flood of light on the story contained in the two previous hymns. "Allied with thee, in this thy friendship, soma," "with thee for his confederate"—these expressions show beyond doubt, that soma, whatever it might be in the allegorical ceremonies of priests, was not originally an enervating draught in the ordinary sense of the word. It is, again, distinctly called by the name *Indu* or moon in this and many other hymns. This hymn, therefore, confirms the identity of the moon and soma.

Ahi—Serpent. In many places in the *Rig Veda* (IV, 19, 2 ; V, 30, 6 ; II, 11, 5) *Vritra* is described as a serpent or dragon. Astronomically the constellation *Hydra* represents this powerful minister of darkness.

Of *Hydra* and its connexion with ancient mythology we shall give an account in the words of Mr. Plunket, who says :—"On the celestial sphere many serpents and dragons are represented, but the far-reaching constellation *Hydra* exceeds all the others in its enormous length from head to tail. No very brilliant stars mark the asterism, nor in the grouping of its stars is there anything snake-like. For some reason other than its appeal to the eye did astronomers of old invest with all the horrors of *Hydra*-form the monotonous length of this space on the vault of the skies. This reason may be arrived at, with

almost certainty, in studying, with the help of a precessional globe, the position in the heavens of this constellation in different ages of the world's history. So studying we shall find that 4000 B. C.—or, to be more precise, one or two hundred years earlier—Hydra extended its enormous length for more than 90° symmetrically along one astronomically important (though invisible) mathematical line—the line of the heavenly equator—and was at the same date accurately bisected by another equally important mathematical line, namely, the colure of the summer solstice. Almost irresistably, as it appears to me, the conviction forces itself on the mind, in considering the position held by the constellation Hydra about 4000 B. C., that it was at that date that this baneful figure was first traced in imagination on the sky, there fitly to represent the power of physical (and, may we not suppose, of moral) darkness, a great and terrible power—but a power ever and ever again to be conquered by the victorious power of light. In astronomic myth this power was represented as that of the sun at the season of its highest culmination. For an observer in the temperate northern zone, all through the long nights of midwinter, the whole length of the dreadful Hydra was at the date named visible above the horizon. The dark midwinter season was, therefore, the time of the Hydra's greatest glory. At

every season of the year, except at that of mid-summer, some portion of the monster's form was visible during some part of the night. But at the summer solstice no star of the constellation might show itself, for ever so short a time." Mr. Plunket's view set forth so lucidly and with such power is weak in one point, in consequence of his inability to carry the ancient observer beyond the "temperate northern zone". A step further would have made his position unassailable. As it is, its vulnerability lies in this that though he has made Hydra "represent the power of physical darkness", he has been unable to show that the death of Hydra was followed by a complete cessation of darkness or night. In the temperate northern zone every 24 hours has its day and night. There can, therefore, be no complete cessation of night in that zone. There may, no doubt, be variations in the duration of day and night respectively during the year—the nights may sometimes be very long and sometimes very short; but in the language of allegory such variations can only be described as variations in the strength of Hydra and never as its death, that is to say, Vritra may be weakened but not killed. Mr. Plunket's statement that "at the summer solstice no star of the constellation might show itself for ever so short a period", does not, therefore, warrant an identity between

the constellation and Vritra of the Vedic legend who represents darkness. This inconsistency is removed by placing Mr. Plunket's observer in the frigid zone where there is a long continuous day at the time of the summer solstice. At the summer solstice in the frigid zone about 4000 B. C. both Hydra and night disappeared for some time.

"Made waters flow together", "sent forth the seven rivers", "opened, as it were, obstructed fountains"—All these passages refer to the restoration of light by Indra. "Waters", "seven rivers", "obstructed fountains", mean the same thing, namely, the celestial waters, the flow of which means, in Vedic language, the prevalence of light. The word *together* is important here. It signifies a continuous flow of upper and nether waters. Ordinarily, the flow of upper waters causes day, and the stagnation of nether waters causes night. The stagnation of both upper and nether waters causes the long continuous night, and the flow of both causes the long continuous day.

"Indra swiftly with might pressed down the wheel of Surya"—This pressing down of the wheel of Surya has given rise to a good deal of controversy among commentators, and it has, as a matter of fact, remained an almost unexplained thing. The theories about its referring to the obscuration of the sun by a storm-cloud or to its diurnal setting have been justly dis-

missed by Mr. Tilak as frivolous or unsatisfactory.* But Mr. Tilak's own conclusion that "when this wheel is said to be stolen, we must suppose that the sun himself was taken away," does not seem to be entirely free from error. His premises are all correct. We fully agree with him when he says that "Indra is the chief hero in the fight between the powers of light and darkness," and that the stealing of the wheel of Surya and the conquest over the demons "are contemporaneous events".§ It is true that "we are told that he (Indra) used solar rays as his weapon to kill or burn the demons (VIII, 12, 9)" and that "the Rig Veda distinctly speaks 'of the sun dwelling in darkness'."§ Mr. Tilak is also correct when he says that "the sun dwelling in darkness" "can be explained only on the supposition that the Vedic bards believed that the sun was deprived of his lustre when he sank below the horizon."§ But when from these premises he draws the conclusion that the orb of 'the sun dwelling in darkness' "could be said to be utilised by Indra in vanquishing the demons,"‡ we think he is not correct. How could the sun dwelling in darkness, that is to say, shorn of his lustre, or, in other words, how could the *dark* sun help Indra in vanquishing

* The Arctic Home in the Vedas, p. 320.

§ The Arctic Home in the Vedas, p. 321.

‡ *Ibid*, p. 322.

darkness ? In his zeal to prove the Arctic Theory by establishing that the Rig Veda contains distinct references to a long continuous night, Mr. Tilak has, we fear, sometimes lost sight of the long continuous day and the ordinary days and nights of the circumpolar region. He forgets that if Vritra represents the darkness of the long continuous night, he represents also the darkness of ordinary nights, and that the demon of darkness is not destroyed so long as night follows day. The long continuous night denotes the zenith of Vritra's power, when the demon has vanquished the gods and imprisoned Surya, and holds sway over the three regions. But victory does not abide with him for ever. The gods gather strength and in the fight that ensues the Asvins succeed in liberating the sun and the long continuous night is ended. After this the sun is once captured and once liberated every 24 hours, causing ordinary nights and days. At first Vritra proves stronger than the gods and nights become longer than days. But as the gods gradually gain strength the demon is weakened and nights become shorter and days longer. At last Indra destroys Vritra with the help of the sun and the moon and brings the long continuous day. The wheel of Surya is stolen, taken away or pressed down so that he may not be carried below the horizon, and his constant rays are used by Indra "as his weapon

to kill or burn the demons." The stealing of the wheel of Surya and the conquest over the demons are thus contemporaneous events. The pressing down of the wheel of Surya means the same thing as the unyoking of his car in the midst of heaven explained by Mr. Tilak in one place of his book.* Mr. Tilak's arguments in favour of the conclusion that "Indra stole the solar orb and took the sun with him into darkness to fight with the demons,"† are based chiefly on R. V., VI, 31, 3, which says,

*"Tvam Kutsena abhi Shushnam Indra
Ashusham yudhya Kuyavam gavishtau.*

*Dasha prapitve adha Suryasya
mushayas chakram avive rapámsi",*

and particularly on the expression "*Dasha prapitve*." Sayana explains this expression as "Thou bittest him in the battle." Both European commentators and Mr. Tilak dismiss this explanation and are most probably justified in doing so.‡ But European commentators and Mr. Tilak differ in the meanings they assign to the word *prapitve*. It is not our purpose here to enter into a discussion of the merits of these different meanings. We shall simply consider whether, granting Mr. Tilak to be correct in the meaning he assigns to the expres-

*The Arctic Home in the Vedas, pp 140-144.

† *Ibid*, p 326.

‡ *Ibid*, p 323.

sion *dasha prapitve*, he is justified in drawing therefrom the conclusion that the stealing of the sun's wheel by Indra means the same thing as the confinement of the solar orb during the long continuous night of the Arctic region. *Dasha prapitve*, according to the author of *The Arctic Home in the Vedas*, means " 'at the decline of the ten,' meaning that Shushna was killed at the end or conclusion of ten (months)," and he translates the above verse thus:—
 "O Indra ! in the striving for cows do thou, with Kutsa, fight against Shushna, the Ashusha and Kuyava. On the decline (or the completion) of the ten (*scil* months), thou stolest the wheel of Surya and didst destroy calamities (or according to Oldenberg, manifest manly works)."*
 He then observes that the ten months refer to the period of sunshine ranging from the end to the beginning of the long continuous night, and this leads him to the slippery ground in which he fixes the time of Shushna's defeat and death at the beginning of the long continuous night. Now Shushna is a demon of darkness and the long continuous night is the period of the highest triumph of demons of his class. The beginning of this period cannot, therefore, be justly marked as the time of the destruction of Shushna. The inconsistency thus resulting is, however, removed if we take

* The Arctic Home in the Vedas p 324.

the ten months to refer to the period of nights ranging from the end to the beginning of the long continuous day. "On the decline" of this period, during which the struggle between light and darkness continued with more or less vigour, Indra steals, takes away or presses down the wheel of Surya to prevent his being carried below the horizon, and, armed with his rays and invigorated by Soma, completely destroys the power of darkness for the remaining two months of the year. The above verse VI, 31, 3 receives this explanation on Mr. Tilak's interpretation of the expression *dasha prapitve*, but with this advantage over him that we are not forced to fix the time of the complete overthrow of the power of a mighty demon of darkness at the beginning of the long continuous night. This explanation, moreover, saves us from supposing, like Mr. Tilak, "that the wheel of the sun means the sun himself in the present legend," or making *Suryasya chakram* equivalent to *Suryam chakram*.* The sun may be compared to a wheel on account of his circular appearance and called *Suryyam chakram* or solar orb, and his chariot may be *ekachakra* or a monocycle.* But we are not justified in drawing from these premises the conclusion that the solar orb and the wheel

*The Arctic Home in the Vedas p324

of the sun are one and the same thing. The former is the sun himself, whilst the latter is an imaginary instrument which carries the sun through space.

“What rolled, all life’s support, on heaven’s high summit, was separated from the great oppressor”—This passage puts the whole thing in a nutshell. What happened after Indra had pressed down the wheel of Surya, *i. e.*, had prevented him from going below the horizon? The sun himself, who is the supporter of all life on earth, rolled on heaven’s summit. A distinction is thus clearly made between the wheel of the sun and that which rolled on heaven’s summit, *i. e.*, the sun himself. The expression “*rolled on heaven’s high summit*” is significant, because it says, in terms that cannot be mistaken, that the sun’s course lay completely above the horizon—the sun that sets cannot be said to *roll* on heaven’s summit. *High* refers to the time of the Summer Solstice when the sun moves in the highest portion of the ecliptic. The *great oppressor* is Vritra or darkness. The expression “*separated from the great oppressor*” confirms the conclusion that in this hymn the Vedic bard gives a description of the long continuous day of the arctic region. The hymn, moreover, proves that Indra is pre-eminently the sun-god presiding over the Summer Solstice.

CHAPTER IV.

THE EVIDENCE OF Greek MYTHOLOGY.

THE EAGLE OF ZEUS.

In Greek Mythology the Eagle is sacred to Zeus. Tracing the origin of Zeus we see that the Cretans believed him to be the son of Kronos and Rhea. Kronos used to swallow his children immediately after their birth, but Zeus was saved from this fate through the solicitation of his mother and the advice and intercession of Uranus and Ge. An analogous story in the Mahabharata relates how king Santanu became the father of the Vasus or luminous beings, and destroyed them immediately after their birth with the exception of Bhishma, the grandfather of the Kauravas and Pandavas. Now, Max Muller suggests that Kronos represents the night, and this is partly correct. But Kronos is not night in our sense of the term. He is the long continuous night of the arctic region. And if we identify Kronos with Varuna, we at once see how the sun-god Zeus was saved through the intercession of the great encompasser and how Metis or dawn made Kronos disgorge the children he had swallowed, the stone which stood for Zeus being the first to come out. Divested of allegory it is a simple story of the long continuous night and its end with sunrise. During the infancy of Zeus, when he lay concealed in a cave, he is said to have been fed and nursed by an eagle who

carried him nectar from a steep rock and for this service the bird was made the bearer of his thunder. A goat also is said to have fed him with its milk and was rewarded by being placed among the stars. In all this the reader sees only slightly altered versions of the stories of the Eagle and the Goat we have explained before.

GANYMEDES AND HEBE.

Moreover, we find an almost exact counterpart of the Vedic story of the conquest of Soma by the Eagle in the Greek story of the abduction of Ganymedes to heaven by the Eagle of Zeus. Zeus was charmed with Ganymedes' beauty, had him borne away by his eagle and made him his cupbearer in the place of Hebe. According to some accounts Zeus was himself the ravisher of Ganymedes in the shape of an eagle. Unable to account for the assumption of Hebe's office by Ganymedes as cupbear of Zeus the later Greeks invented the story that "poor Hebe in the execution of her office, happening in a fall to show her sex Zeus was shocked at the indecency, turned her out of office and introduced Ganymedes in her place." Now Hebe, the daughter of Zeus and Here is the twilight, like the Vedic Ushas or Suryâ. She is wedded to Herakles, in the myth of whose death "looms a magnificent sunset" (Max Muller's Chips IV, 96). "A cloud comes down," remarks

Sir George Cox, "which bears him away to Olympus, there to dwell in everlasting youth with the radiant Hebe as his bride." We can easily imagine how twilight can be conceived as the Goddess of youth reviving and rejuvenating the brilliant gods hid in the womb of darkness with the drink of her cup. But in an arctic habitation a time comes when Hebe is dismissed from office, and twilight ceases to serve the gods. It is during the long continuous day. She who was worshipped at Phlius as Ganymeda, the female substitute for Ganymedes among the gods, has to make room for the latter. Ganymedes is one of the very few instances of the moon being conceived as a male by the Greeks. Indeed, the story of the conquest of Soma by the Eagle seems to have lost its import more among the Greeks than among the Hindus. The story remained, but the meaning of the conquest of nectar was forgotten. The carrying off of Ganymedes by the Eagle was remembered as also the drinking of nectar by the gods. What was forgotten was that Ganymedes was the moon and that the moon was the nectar. Consequently, Ganymedes began to be conceived as the cup-bearer to the gods drinking nectar, and the successor of Hebe or twilight in that office. One thing important about Ganymedes is, however, preserved in the Greek legend. He is identified with Aquarius, and this fixes beyond doubt the

original date of the story. It is the date of the full moon in Aquarius at the time of the Summer Solstice. The continuous night was forgotten, the all-gods' (*Visvedeva*) feast of nectar was forgotten and the new moon in Leo was forgotten. But fortunately the later Greeks preserved the crucial point of the story by identifying Ganymedes with Aquarius, so that if the Veda preserves an anecdote of the beginning of the long continuous day, the Greek legend preserves in addition an indication of the exact time of the Summer Solstice.

TITYOS.

The career of the moon at the beginning of the long continuous day is, however, more fully allegorised in the legend of Tityos. In the sad career of Tityos one hardly sees the fate of the beautiful Ganymedes. Killed by the arrows of Apollo and Artemis (sun and sunlight) for offering violence to the latter, poor Tityos was thrown into Tartarus with vultures preying on his liver. Divested of allegory, this means that after being full in the talons of the Eagle the moon remained hid for some days during its journey through the lowest part of its path, the region of darkness. The synchronous disappearance of the moon and the complete destruction of darkness sometimes led the ancients to mingle the two in their minds and to conceive the one

as equivalent to the other. The disappearance of the moon at the beginning of the long continuous day was equivalent to the destruction of the demon of darkness. And naturally the next step from this was to identify the demon with the moon, and this identification lies at the bottom of the story of Tityos conceived as a demon killed by Apollo and Artemis and thrown into Tartarus. This jumble of ideas was not peculiar to the Greeks alone. It overtook the Hindus also who gave the confusion such a refinement as almost to reconcile it with reason. The Satapatha Brahmana says, "The victim is yonder moon, and him the gods slaughter at full moon;" and, again, "The fullmoon oblation assuredly belongs to the Vritra-slayer, for by means of it Indra slew Vritra; and this newmoon oblation also represents the slaying of Vritra, since they prepared that invigorating draught for him who had slain Vritra. An offering in honour of the Vritra-slayer, then, is the fullmoon sacrifice. Vritra, assuredly, is no other than the moon; and when during that night he is not seen either in the east or in the west then he (Indra) finishes in destroying him by means of that and leaves nothing remaining of him." The liver of Tityos also, preyed upon by vultures, increases and decreases with the waxing and waning of the moon so that at new moon there remains nothing of it. Nothing can appear more

instructive and more fascinating to the student of comparative mythology than such identity between two later conceptions of an original but forgotten fact by two different peoples in two different countries and perhaps in two different ages.

HERACLES AND HYDRA.

We are unable to resist the temptation to cite the story of Heracles's adventures with serpents and the Lernean Hydra as an additional evidence in support of our theory. The first exploit that Heracles, the sun-god, made after his birth was to destroy the serpents which Hera sent for his own death. The serpents were two in number and by killing them the solar hero put an end to a continuous night of two months. But there still remained the great serpent-monster Hydra for him to fight, conquer and destroy before an undisputed sway of light and glory could be established. Indeed, it was one of the most difficult tasks in which the hero of twelve superhuman labours was ever engaged. Hydra "was formidable by its nine heads, the middle of which was immortal." Heracles, with burning arrows, hunted up the monster, and cut off its heads; but in the place of the heads he cut off new heads grew each time and "a gigantic crab came to the assistance of the hydra and wounded Heracles." At last Heracles kindled

a great fire, burned away the heads of the monster in it and buried the immortal one under a huge rock. This legend is fully explained by the theory, set forth in the last chapter, of nights occurring during ten months in latitude $69^{\circ}51'$. Hydra's nine heads represent the nine periods of darkness, the period of continuous night for two months being reckoned as one, and it is this head which is called immortal because during this period the day does not follow the night every 24 hours. The fight with Hydra begins at the close of the long continuous day when the sun is in Libra about 4000 B. C. Now, when the sun in Libra set in the west in latitude about $69^{\circ}51'$ in those ancient days, the first zodiacal constellation that became visible in the northern horizon and in the vicinity of the place of sunset was Cancer, Leo remaining invisible in the brilliant twilight of the evening. The crab or Cancer might, consequently, be said to have come to the help of Hydra and wounded Heracles. Besides this, as Cancer was the first friend of Hydra, so it was also its last friend ; for, the period of nights continued up to the time of the sun's stay in it. Heracles fought with Hydra with burning arrows, the fiery rays of the sun ; but each time he cut off one of its heads, a new one appeared in its place, that is to say, each period or month of ordinary days and nights was followed by a similar period. At last the solar

hero generated the long continuous day and in that universal conflagration the heads of the demon were all burnt away and it was killed. But the long continuous night was such a mighty reality to the people among whom these phenomena occurred, that the head of Hydra's which represented this period could not be thought of as destroyed. It was to them immortal and they conceived it as hid in a rock during the period of long continuous day just as the solar rays were conceived as hid in a rock during the period of continuous night.

THE EVIDENCE OF NORSE MYTHOLOGY.

Passing north from the sub-tropical and south-temperate regions of India and Greece to the north-temperate and sub-arctic peninsula of Scandania where a branch of the ancient Aryan stock migrated and settled in some pre-historic days of untold antiquity and has since lived there in barbaric simplicity and peculiar singleness, least affected by the forces of civilisation which have twisted and plicated, deformed and destroyed and mixed and metamorphosed the original strata of Aryan thought and speculation in the southern countries—passing to those ice-bound northern regions we expect to see in the quaint fables and fictions of their rough and unpolished inhabitants, distinct traces of the memory of their original home in a still higher

latitude. We say traces, because although in the southern countries the forces of civilization have cleaved, squeezed, pulverised, distorted, disfigured and displaced the first strata, they have also preserved from the constant decaying influence of the weather and the atmosphere many a fine specimen of the primary stone by burying it beneath the surface, so that we have only to follow down the mighty faults and search beneath the anticlines and synclines generated in the popular beliefs and traditions of a people in order to reach the primary stone, perfect and well-preserved. On the other hand, where the first strata are not buried beneath the surface but lie exposed to the decaying and disintegrating influence of the weather and the atmosphere, they may not be destroyed altogether, but their surface is so much worn out and defaced that we cannot expect to see in it more than a faint resemblance of its former appearance. The ingredients are there, but the appearance differs. Change of conditions produces a corresponding change of ideas, so that popular beliefs having their origin in the physical conditions of one place fashion themselves imperceptibly in accordance with the physical conditions of another place where they may be shifted. It is only here and there that the popular mind retains the memory of the exclusive peculiarity of the forlorn and forgotten home

and that also in a quaint and deformed state. In most cases the old thing gradually moulds itself according to the shape and peculiarity of the new vessel to which it is transferred. In Scandanavia which borders on the Arctic Circle there is properly speaking no long continuous night and no long continuous day, but the struggle between light and darkness is still so fierce that in gloomy winter the day almost disappears and in bright summer the night almost ceases to exist. Consequently, the Scandanavian mind teems with the idea of demons of darkness living in the bowels of the earth and the depths of the sea and becoming most powerful in winter ; and as winter is associated with storm and tempest they are also conceived as generators of those fearful storms which are a source of constant peril to the sea-faring life of a Scandanavian. But unlike the Vedic story, the demon is unable to make the sun a captive. Thor's hammer is always victorious. Thor once met a giant, whom he asked where he was going. "To Valhall", said the giant, "to fight with Thor because he has burned up my' cattle-house with his lightning." The giant struck at Thor all he could, but the god with his hammer smote him dead at once.* Of the long summer day we read as follows in another story :—"In Tindfell there has lived from time immemorial a giant of

* W. A. Carlgie's Scandanavian Folk-lore, p. 18.

the largest kind. Once he was in a hurry and had no time to go up to the end of Tind Lake, so he thought it would be quite possible for him to stride over the little bit of water. For this purpose, he planted his foot on its west side, but was unfortunate enough to slip, and so made a great rift in the Fell. As he stepped in this way, he landed with one of his feet in the water, but deep as it is, it did not reach higher than his belt and with the next step he was up in the East Fells.”* This story unmistakably refers to the grazing of the horizon by the sun at the Summer Solstice. The sun does not set; he only wades through the little bit of water lying between East and West.

ODIN.

It is not, however, in vain that we seek, in the popular tales of Scandania, reminiscences of the primary home of the Aryan race. Indeed, as Max Muller has rightly said, the elements or the seeds of these fairy tales belong to the period that preceded the dispersion of the Aryan race, and were the common heir-loom of the Indo-European race, and their origin carries us back to the same distant past, when no Greek had set foot in Europe, no Hindu had bathed in the sacred waters of the Ganges. § The Scandanian Edda preserves for us unmistakable, though

* W. A. Craigie's Scandanian Folk-lore, pp. 85-86.

§ Chaps IV, pp. 542-543.

generally misunderstood, legends of the long continuous night and day. The sun-god Baldur has his yearly death and resurrection. At the commencement of the twilight of the long continuous night Loki, the fire-god represented as an enemy of the gods, is released and, like Prometheus of Greek Mythology, destroys the sway of the Æsir and lays Asgard waste. "Odin himself falls, Thor dies and the beautiful Baldur is consumed in the flames."* Odin in the Edda is what Varuna is in the Veda. Jacob Grimm defines him as 'the all-penetrative and formative power.' Like Varuna he is the diety of all space, of both the upper and the nether space. He is not only the soul of light, but he is also the divinity of darkness. He not only manifests himself in the company of Thor and Baldur, like Varuna manifesting himself in the company of Indra and Mitra, in the bright heaven of the Æsir, but, like Varuna, he also associates himself with the Jotuns or giants in the cave of darkness. At the close of the period of darkness Odin overthrows the Jotuns, just as Zeus overthrows the Titans or Varuna vanquishes the Daityas. In fact, like Varuna, Odin is pre-eminently the god of the nether region. As the divinity of all space, upper and nether, Odin has two eyes, just as in the Rig Veda heaven is said to have two eyes

* Sir G. Cox's *Mythology of the Aryan Nations*, p. 187.

(R. V, I, 72, 10). But as the god vanquished by the demon of darkness, he is said to have only one eye, the moon. Odin is, therefore, generally represented as one-eyed. Mythologists have so long supposed this one eye to be the sun. But this does not seem to be correct from a consideration of the story as to how he lost his other eye. Let us now see what this story is.

THE WORLD-TREE YGGDRASIL.

In Scandanavian Mythology the universe is conceived of as a tree called Yggdrasil. The roots of this tree are in Niflheim, "the region of deadly cold at the northern end of the chaotic world,"* and are gnawed by Hel, a demon half-serpent and half-woman, and Hrimthursen or frost-giants; its mid-branches are in Jotunheim near the well of Mimir and inclose the abode of men in Miggard, the middle-garden or earth; and its top reaches Asgard, the highest heaven where the gods dwell. This tree is almost an exact counterpart of Varuna's tree as described in the Rig Veda, the stem of which "Varuna sustaineth erect in the baseless region" (R. V., I, 24, 7) and is encompassed by Vritra. In the Rig Veda also the top of this tree is said to be inhabited by gods, for in R. V., X, 135, 1 we read, "In the Tree clothed with goodly leaves where Yama drinketh with the gods, the Father,

* Sir G. Cox's Mythology of the Aryan Nations, p. 188.

Master of the house, tendeth with love our ancient sires." Hel of the Edda corresponds to Vritra of the Veda and "the chaotic world" is the world of darkness at the northern end of which—the antipodes of the Arctic man—occurs the "deadly cold" Winter Solstice. The mid-branches of the world-tree Yggdrasil represent the middle-region, that is, the region of the plane of the horizon in which man lives and where lies also the abode of Jotuns or giants warring with gods. And as at the roots of this tree lies the serpent Hel, Vritra or Hydra, so in its crown sits an eagle or Aquila. On such a tree Odin hangs himself wounded with a spear:—

I know that I hang On a wind-rocked tree
 Nine whole nights, With a spear wounded,
 And to Odin offered, Myself to myself,
 On that tree, Of which no one knows
 From what root it springs.*

This song evidently refers to the captivity of Odin, conceived as a sun-god, for nine days. And the dual nature of Odin as the god of the bright heaven and also of gloomy Hades is clearly indicated in it. During the long night Odin is offered to Odin, himself to himself, the bright god to the dark god.

THE SINGLE EYE OF ODIN.

As the god of the long continuous night

(*) Odin's Rune Song, Thorp's translation of Sæmund's Edda, p. 340.

Odin is adequately described "as an old man with a broad hood and a wide-flowing robe"* and is represented as one-eyed. "He desired to drink from Mimir's well, but he had to leave there one of his eyes in pledge, as it is said in the *Volupsa*: All know I, Odin! Where thou hiddest thine eye In Mimir's famous well."§

Mimir's well is near Jotunheim overspread by the midbranches of Yggdrasil representing the region of the plane of the horizon and it is here that one of Odin's eyes, the sun, is hidden at the commencement of the long night during which Odin, consequently, becomes one-eyed. The mistaken idea that the single eye of one-eyed Odin is the sun has so long made it impossible for mythologists to explain properly the above story of the loss or concealment of one of his eyes. Seemingly in despair Tylor says, "The lost eye in the well is perhaps the sun's own reflection in the pool, or more likely that of the moon."† And Sir G. Cox seeks to explain the matter away by suggesting that the story of the loss of an eye "necessarily sprang up when he (Odin) was figured as an old man with a broad hood and a wide-flowing robe."‡ It is the conviction that "the single eye of Odin points beyond

* Sir G. Cox's *Mythology of the Aryan Nations*, p. 193.

§ Tylor's *Primitive Culture*, i, 351.

† *Ibid.*

‡ *Mythology of the Aryan Nations*, p. 193.

doubt to the sun," that has led to all this confusion. The sun is no doubt an eye of Odin's, but he loses this eye near the well of Mimir at the commencement of the long night, and then he possesses only one eye, the moon. In the Rig Veda Soma or the moon is distinctly called "the single Eye" (*Ekamakshi*, R. V., IX, 9, 4). Again, if the space-god of the continuous night is conceived as one-eyed, the demons of the gloomy period are also conceived as such.

THE CYCLOPES.

The well-known story of the Cyclopes in Greek Mythology is a story of long night. These one-eyed giants represented the period of darkness and their number three most probably referred to three months of continuous night. They belonged to the Titans and were thrown into Tartarus along with them. They assisted Kronos in usurping the sovereignty of the world.—Kronos who devoured his children, the gods of light, after their birth. Conceived as gods instead of demons, the Cyclopes are assistants of Hephaestus—quite a later tradition according to Dr. Smith—and provide Pluto with the helmet which renders him invisible, Poseidon with his trident and Zeus with his thunder-bolts. But gods or demons, they are in the end killed by Apollo, the bright sun. Considering all this, there can be no doubt that the single eye of the Cyclopes is the moon.

THREE GIANTS WITH ONE EYE IN COMMON.

We have, moreover, a Scandanavian story which, inspite of its quaintness and oddity, makes the matter simpler still. We shall quote the story at some length in order that the reader may form an unbiased opinion about it in the light of the evidence we have discussed above :—

“Two brothers who lived on a little farm heard that some falconers had built themselves, a hut at some distance, so they decided to go that way and see the birds and how they were caught. But by this time it was so far on in the year that all the dairy-maids had gone home from the shielings and they could nowhere find either shelter or food. They followed a faint track which they lost when the darkness fell upon them, and before they knew, they were in the thick of a forest. When they saw that they could not get on any further, they began to break off branches and make a fire, as well as build a little hut, for they had an axe with them. Then they tore up heather and moss, and made a bed of that. Some time after they had lain down, they heard some one snuffing loudly with the nose, and listented attentively to see whether it was a beast or a wood-troll. The snuffing was repeated, still stronger than before. Then they heard steps so heavy that the earth shook bencath them, and knew that the trolls

were out. 'God help us; what are we to do now?' said the younger boy to his brother. 'Oh, just you stay under the fir-tree where you are, and be ready to lift the bags and take to your heels as soon as you see them come; I shall take the axe,' said the other. At that same moment they saw the trolls approaching, so tall and stout that their heads were as high as fir-tops, but they had only one eye between the three of them, which they took turns of using. They had a hole in the forehead, in which they set it, and guided it with the hand. The one who went in front had to get it and the other two came behind and hung on by him. 'Take to your heels,' said the older of the boys, "but don't run too far until you see what happens. Since they have their eye so high, they will have difficulty in seeing me when I come up behind them." His brother ran on ahead and the trolls followed him, but the elder boy came behind, and hacked at the hind-most troll's ankle-joint, so that he set up an awful howl. At this the foremost one was so alarmed that he started and let go the eye, which the boy was not slow in snapping up. It was as large as two quart-bowls laid together, and so clear that although it was a pitch-dark night, it became as bright as day when he looked through it. When the trolls discovered that he had taken the eye from them, and done mischief to one of their number, they began to threaten him

with all possible evils unless he returned it at once. 'I am not afraid of trolls and threats,' said the boy; 'I have three eyes now, and you three have none, and two of you must carry the third.' 'If we do not get our eye again this minute, you shall turn to stock and stone,' screamed the trolls, but the boy thought it would hardly go so far as that; he was afraid neither of beasts nor of trolldom, he said, and if he was not left in peace, he would hack at all three of them, so that they would come to creep on the ground like reptiles and vermin. When the trolls heard this they were frightened and began to speak him fair. They earnestly begged him to give them the eye again, and he should get both gold and silver and all that he could wish for. The boy thought this was very fine, but he would have the gold and silver first, so he said that if one of them would go home, and bring as much gold and silver as would fill his and his brother's bags, and give them two good steel-bows as well, they should have the eye, but until that he would keep it. The trolls protested and said that none of them could go, when they did not have the eye to see with, but at last one of them began to shout for the old woman, for all three had an old woman in common as well. In a little he was answered from a crag far away to the north. The trolls told her to come with two steel-bows and two buckets full of gold and

silver, nor was it long before she was there. When she heard how things had gone, she too began to threaten, but the others were frightened and entreated her to take care of the little wasp; she could not be certain that he would not take her eye as well. 'So she threw the buckets of gold and silver along with the steel-bows to the boys, and went off home with the trolls, nor since that time has any one heard of their going about in the forest.'*

This popular story of the Northmen is, so far as we are concerned here, an improvement on the Greek story of the Cyclopes; for, instead of making everyone of the demons of darkness possessed of a single eye like the Cyclopes, it makes "the single eye" their common property which they use by turns when it is winter. We are, consequently, amply justified in concluding that the single eye is the moon which the demons representing the months of continuous darkness use by turns, and is also the eye which Odin possesses during this period after he has lost his other eye, the sun. The treasure which the boys get is the treasure of sunlight, the treasure which is said in the Edda to have been conquered by Sigurd, the solar hero and descendant of Odin, by killing the serpent Fafnir. Or, it may be "the treasure of the earth which the nebulous

* W. A. Craigie's Scandanavian Folk-lore, pp. 67-70.

powers of winter and darkness had carried away like robbers. The vernal sun wins it back, and like Demeter, rich in the possession of her restored daughter, the earth becomes for a time rich with all the treasures of spring.”* There is another point in the simple story of the two brothers which draws our attention. The trolls or demons of darkness are said to have begun haunting the world when falcons were killed. Now, when the sun came to the first stars of Capricornus at the beginning of three months’ continuous night, the neighbouring constellation Aquila became, as we have said before, invisible by being hid in its light. This is the falcon-hunting, a vestige of which is retained in the Northman’s story. And it is the constellation Aquila which is the prototype of the Eagle which adorns the crown of the world-tree, that is to say, the horizon of the ancient arctic man at sunset and sunrise at the beginning and the end of three months’ continuous night.

THOR’S HAMMER.

When about 4000 B. C. the sun in the first stars of Capricornus set not to rise again for three months above the horizon of the arctic man in lat. about $73^{\circ} 40'$, the Eagle was covered with the solar light which formed the evening twilight. Twilight might, conse-

* Chips IV, pp. 117-118.

And the Jotuns ran, All crushed,

And so got Odin's son His hammer back"*

This is unmistakably the sunrise after the long continuous night.

The Rig Veda contains a verse which seems to preserve an idea exactly similar to that of the loss of Thor's hammer. R.V., IX, 67, 30 says, "The dark fiend has destroyed (or carried away) the axe of Alâyya; flow (it) on to us, god Soma. Surely it is an enemy, (kill it) god Soma." The St. Petersburg Lexicon suggests that Alâyya here stands for Indra. If so, we have here an almost exact counterpart of the loss and recovery of Thor's hammer.

It will not be altogether out of place here to mention another point in the story of Thor's hammer which confirms our theory of three months' continuous night. This hammer that is sunk below the surface of the earth during the winter months is said to take nine months to rise again to Asgard or the highest heaven. Now, as hell is the place where the sun lies during the continuous night, it is Asgard or the highest heaven where he lives during the continuous day. And if this long day is one of 3 months' duration, Thor's hammer will evidently take 9 months to reach it again after its fall from it.

THE HORSE.

Like Indra and Zeus, Odin too has a white horse

(*) Lay of Thrym, 32, Thorpe's translation of Sæmund's Edda.

which bears him through the thick of the battle. It is interesting to study what shape this steed has taken in the folk-lore of the Norse. We have seen before that in the Rig Veda the horse of Indra is described as first springing into life from the sea and neighing at the beginning of the winter months of the arctic man in latitude about $73^{\circ}40'$ about 4000 B.C. The horse Nykur of the popular stories of the Northmen is also said to live "in rivers and lakes, and even in the sea."* And "when cracks come in the ice in winter and cause loud noises, it is said that Nykur is neighing"* As in the Mahabharata story of Uchchaisrava the tail of the celestial horse is said to have been blackened, so Nykur is said to be "generally grey in colour, but sometimes black"* and as the tail of Uchchaisrava has a story of its own so has the tail of Nykur also. The long continuous night of the Mahabharata story begins with the tail of Uchchaisrava darkened or below the horizon and it is this tail which causes the captivity of light. Of Nykur it is said, "he looks quiet and tame, and so entices folk to come near to him, and clap him and stroke him on the back ; but as soon as they happen to touch the tail, they stick fast to him, and then he lets no one go, but drags them down with him to the bottom of the water".§ Nykur

* Craigie's Scandanavian Folk-lore, p. 233.

§ *Ibid*, p. 237.

can extend its back to any length and so carry off any number of riders to the sea. One time three or four children, disporting themselves on the banks of a lake, saw there a grey horse. "One of the children mounted it, and the others followed, one by one, till only the eldest was left. The others told it to come up too, the horse's back would be long enough for them all to sit on. The child would not go, however, and said it did not care to. With that the horse started and dashed into the lake with all the children on its back" *. If we think that the sea out of which Nykur springs is the sea of the nether region, we can at once identify the horse with the constellation Pegasus carrying off riders into the sea, that is to say, causing long continuous nights. When in ancient times Pegasus was a south constellation, it could, in arctic latitudes, be seen to advantage during the dark winter months only, and could thus be appropriately said to have carried off sun-lit days into the waters. And from this standpoint it could very well be called a creature of hell instead of a friend of the gods. Indeed, in the northern sagas the horse is called the Hell-horse§.

GILLA DACKER AND HIS HORSE.

The Irish folk-lore supplies us with an excellent

* Craigie's Scandanavian Folk-lore, p. 235-236.

§ *Ibid*, p 437.

story of the horse conceived of as a creature of the devil or enchanter. The story is shortly as follows :—Finn MacCool, the Irish hero, was one day apprised of the advent of a huge unwieldy man, dragging an immense skeleton-like horse after him. Finn demanded his name, his birthplace, and what he wanted. “Gilla Dacker (Slothful Fellow) is the name I am called. The spot I come from is not worthy of a place in your memory. No one will employ me, I am so lazy, and so I seek service with the hospitable chief of the Feni of Erin.” Finn laughed, and told him that he might stay with his grooms. The giant thanked him, saying, “May the King of the North live in fear of you. Go, my poor horse, and graze with the noble beasts on the meadow, the great Finn gives you permission.” Finn had, however, scarcely entered his tent, when he heard such a squealing and galloping from the pasture that he rushed out and beheld the bony steed of the lazy fellow, biting and kicking the other horses, and scattering them in all directions. “Dog of a sluggard”, shouted the irate Finn, “run to the pasture, secure your cursed beast, and let me not set eyes on either of you again.” “Chief of the warriors of Erin,” replied the sluggard, “the slowest of your men would be in Dublin before your servant could reach the meadow. But let Conan catch him by the mane and I will be warrant for his quietness.” Conan seized

the brute's mane, and the weird steed at once stood still as if changed into stone ; in vain did stick and leather thong resound on his ribs ; he remained with set feet as if planted in the ground. At the suggestion of its owner Conan then jumped on its back and plied stick and thong afresh, but without avail. "Ah, where is my memory fled," said the Slothful Fellow, "he will not move without feeling the weight of sixteen men such as Conan." Fifteen of Conan's companions clambered, one by one, on to the back of the ill-conditioned steed, who thereupon, at a touch of his master's magical rod, galloped away followed by his owner, but at such a pace as made pursuit vain. The men tried to throw themselves off, but failed as they found that they were firmly fastened to the back of the magical horse.*

Finn afterwards engaged himself in various adventures in the pursuit and recovery of his captive comrades. It should be noted here that the conception of the horse as a malignant being is of a later origin in the Norse and Irish Folklores. In the Edda., as we have said before, the horse is the horse of Odin, the sky-god. It is only in the later stories formed out of ancient legends of which the true meaning was lost that the animal appears as an evil-doer. And the Irish stories about the horse are most proba-

* Reproduced from Wood-Martin's *Elder Faiths of Ireland and Pre-Christian Traditions*, Vol. i, pp 152-153.

bly derived from the Norse stories to which they correspond even in details.

CUCHULINN AND MACCOOL.

The centre of the most ancient Irish stories is Cuchulinn, who has been proved by Prof. Rhys, in his Hibbert Lectures, to be unmistakably the sun-hero of an arctic people. "Cuchulinn, the sun-hero, is made to fight several days and nights without having any sleep, which though fixed at the wrong season of the year in the epic tale in its present form, may probably be regarded as originally referring to the sun remaining above the horizon continuously for several days in summer"*.

Now, in Irish Gaelic Cuchulinn is pronounced as Coolin and "Mac" is a common prefix in proper names. Mac Cool is thus probably a phonetic and personal transformation of Cuchulinn and stands for the latter in the later traditions of Erin as the chief of the heroic race of the Feni. The adventures of Mac Cool in the search and recovery of his companions carried off by the giant-magician Gilla Dacker on his skeleton horse Is, in all probability, only a later reproduction of Cuchulinn's struggles with his enemies, the Fomori or the powers of darkness, a struggle which was, according to Prof. Rhys, originally regarded as a yearly one

* Rhys' Hibbert Lectures, p. 632.

“of the gods and their allies against the powers of evil and theirs” in an arctic home.*

HOOF'S BACKWARD.

There is one other point in the Norse story of the horse to which I would like to draw the notice of the reader. It is there said that “all his hoofs point backwards, and the tuft on the pastern is reversed.”§ This description may be merely the outcome of a popular fancy, but it remarkably tallies with the configuration of the asterism Pegasus. In the adjoining figure (Fig. 3)

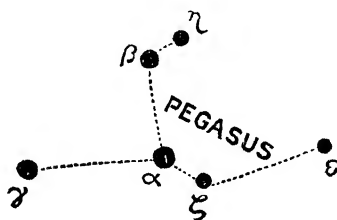


Fig. 3

which represents the constellation in its outline, if γ represents the head of the animal, β and η will represent its pastern and hoof respectively (ζ ϵ . is the tail which is related to have been blackened at the beginning of the long continuous night of two months in the Mahabharata story, see page 5). And η , the hoof, is surely pointed backwards and β , the pastern, is reversed. The ancients were great stargazers, and it is not improbable that the reversed

* Rhys' Hibbert Lectures, p. 531.

§ Craigie's Scandanavian Folk-lore, p. 233.

position of the hoof and pastern of their heavenly horse was noticed by at least some of them.

A WIZARD IN ICELAND.

Harald Gormsson, king of Denmark, once sent a wizard to Iceland in the shape of a whale. On reaching the island he sailed round the north side of it; there he saw that all the fells and knolls were full of land-spirits, some big and some small. When he tried to go up on shore there came out a great *dragon*. The wizard sheered off and went to the east, but there came against him a *bird* so large that its wings touched the fells on both sides. Off he went again and held round to the west coast, but here he met a great *bull* which waded out into the sea and bellowed fearfully, many land-spirits accompanying it. He set off again and went to the south, but here also came against him a *hill-giant* carrying in his hand an iron staff, his head being higher than the fells and many other giants accompanying him.*

* Craigie's Scandanavian Folk-lore, p. 356. In Mr. Craigie's version of the story the huge bird is said to have come out against the wizard in the north-west. But when in the rest of the story three of the cardinal points, north, south and west only are mentioned, we think that it was the east for which the bird was originally meant. When, however the astronomical meaning of the mother-legend of the story was forgotten and the story was made to apply to the island of Iceland instead of to an arctic sky, the bird was relegated to the north-west because the east coast of Iceland was found to be rocky and inhospitable. The later story, therefore, makes the addition that the east coast was "all sands, and rocks, and breakers, and the sea between the countries so great that it could not be crossed by ships of war."

Now, corresponding to the four opponents of the wizard in this story there are four constellations which are visible in the same quarters of the heavens at a certain time of the year from an arctic home only. These constellations are Draco, Aquila, Taurus and Hydra. When in an arctic latitude the sun sets in the evening in the stars of Aries after the months of winter, Draco becomes visible in the north, Aquila in the east, Taurus in the west and Hydra in the south as if guarding the four quarters against the advance of an enemy. The name hill-giant given to Hydra in the story is quite appropriate, for in Aryan mythologies Hydra, representing the power of darkness, is everywhere described as a hill-demon confining the waters or light in a hill during night. The above story, we are led to believe by considerations of analogy and cosmology, indicates the cessation of the long continuous night in an arctic latitude when the sun is in the stars of Aries. But it is only in a very ancient time such as we have sought to establish throughout this treatise that the long continuous night of an arctic latitude could come to an end when the sun was in the stars of Aries. The story, therefore, supplies an additional proof of our theory of an arctic habitation of the Aryan stock in a very ancient time.

We hope that we have been able to prove to the satisfaction of the reader, or, at least,

to the point of rousing him to make further enquiry about the correctness or otherwise of our view, that the Norse Mythology retains much evidence of the ancient arctic home of the Aryan race. And owing to the high northern position of Scandanavia and Iceland it is perhaps retained there better than in other Teutonic countries. All other branches of the Aryan stock having settled, prospered and evolved their mighty civilisations in southern climates, it is in the land of the Northman alone of all Aryans that a giantess living in a mountain cave can still, with a great degree of appropriateness, comfort its crying and unruly child with the ditty:—

“Hush, hush, my little one,

To-morrow Wind-and-Weather, your father
will come.

He will bring with him Sun and Moon.” †

Craigie's Scandanavian Folk-lore, p 391.

CHAPTER V.

THE EVIDENCE OF IRANIAN MYTHOLOGY.

Returning south to the land of Iran we find in the Avesta of the Zoroastrians ample evidence to confirm the theories we have sought to establish in the foregoing pages. This evidence is manifold and many-sided, and we shall be going beyond the scope of this little work to enter on a full discussion of it. We shall, however, examine some of the salient points in it calculated to throw light on the topics we are immediately concerned with, namely, the Eagle, the Horse, the Serpent and the long day and long night.

THE EAGLE.

The Eagle occupies a prominent place in the zoomorphism of Iranian Mythology, and its identity with its Indian, Greek or Norse counterpart is unmistakable. Like the Eagle sitting on the world-tree Yggdrasil of Norse Mythology, the Eagle of the Avesta also is described as occupying a similar mythical tree. In *Rashn Yast*, 17, it is said, "Whether thou, O holy Rashnu! art on the tree of the eagle, that stands in the middle of the sea Vouru-Kasha, that is called the tree of good remedies, the tree of powerful remedies, the tree of all remedies, and on which rest the seeds of all plants." The name Saêna

given to it is the same as the Sanskrit *syena* by which the Vedic eagle is known.

The Avesta has much to say about the part which the Eagle played in the cosmography of the ancient home of the Aryans. Verethraghna, "the best-armed of the heavenly gods", and the mortal enemy of darkness and best friend of light, is said to have manifested himself in ten forms "bearing the good Glory (light) made by Ahura Mazda," and one of these forms was the form of a raven. "Verethraghna, made by Ahura, came to him the seventh time, running in the shape of a raven"*. "He flies up joyfully at the first break of dawn, wishing the night to be no more, wishing the dawn that has not yet come to come"§. It is in fact, the Mahabharata legend of Garurha put in a nutshell, of Garurha struggling for the destruction of darkness and recovery of light. In the form of a raven Verethraghna, the sun-god, "grazes the hidden ways of the mountains, he grazes the tops of the mountains, he grazes the depths of the vales, he grazes the summits of the trees, listening to the voices of the birds."† It is a clear description of fleeting sun-shine just before the commencement of the long continuous night when the sun is in the first stars of Capricornus in the vicinity of the

* Bahrâm Yast, 19.

§ Ibid, 20.

† Ibid, 21.

constellation Aquila. This explanation is confirmed by the fact that the form in which Vere-thraghna next appears is that of a ram, the constellation Aries in which the sun rises after the long continuous night of three months.

THE EAGLE AND THE GLORY.

Again, in Zamyad Yast, it is said that "the Glory departed from the bright Yima, the son of Vivanghant, in the shape of a Vâraghna bird." The Vâraghna bird is the raven, which is one of the incarnations of the Genius of Victory, Vere-thraghna.* The Glory is sunlight and Yima represents a day. Like his Vedic brother Yama, Yima is the son of Vivanghant, which is the same word as Sanskrit *vivasvan*, the sun. The Vedic Yama has a sister Yami representing night, the Avestic Yima is sawed in twain by Azi Dahâka, the demon of darkness, and Spityura, Yima's brother.† It is thus evident that Yima in the Avesta stands for a nycthemeron, for both Yama and Yami, day and night, of the Veda. The Glory "clave unto the bright Yima, the good shepherd, for a long time, while he ruled over the seven Kârsharves of the earth, over the Daevas and men, the Yâtus and Pairikas, the oppressors, the blind and the deaf ;

He who took from the Daevas both riches and

* Darmesteter, Vol. XXIII, S. B. E. S., p. 294, note.

† Zamyad Yast, 46 ; Bundahish, XXXI, 3.

welfare, both fatness and flocks, both weal and Glory ;

In whose reign both aliments were never failing for feeding creatures, flocks and men were undying, water and plants were undying.

In whose reign there was neither cold wind nor hot wind, neither old age nor death, nor envy made by the Daêvas, in the times before his lie, before he began to have delight in words of falsehood and untruth.

But when he began to find delight in words of falsehood and untruth, the Glory was seen to flee away from him in the shape of a bird. When his Glory had disappeared, then the great Yima Khshaeta, the good shepherd, trembled and was in sorrow before his foes ; he was confounded and laid him down on the ground.” *

This is clearly and unmistakably an account of the Glory or sun-shine forsaking the nycthemeron, the Glory “for which the Good Spirit and the Evil One did struggle with one another” §, and “that belongs to the gods in the heavens and to those in the material world, and to the blessed ones, born or not yet born, who are to perform the restoration of the world.”† But why is the Glory spoken of as forsaking Yima in the shape of a raven or eagle ? Because the constellation

* Zamyad Yast, 31-34.

§ *Ibid*, 46.

† *Ibid*, 22.

Eagle or Aquila lay at the junction of the upper and the nether sea, the threshold of life and death for gods of light and demons of darkness ; because Aquila marked the position of the sun at the beginning of the long continuous night. Now, in an arctic latitude below the pole the bifurcation of the ocean of space manifests itself in three shapes, viz., the occurrence of the long continuous day, the occurrence of ordinary days and nights and the occurrence of the long continuous night. Yima is, consequently, said to have been thrice forsaken by the Glory, each time in the shape of a raven. The first time she was seized by Mithra, the sun-god of the long continuous day "for whom the Maker, Ahura Mazda, built up a dwelling on the Hara Berezaiti, the bright mountain around which the many (stars) revolve, where come neither night nor darkness, no cold wind and no hot wind, no deathful sickness, no uncleanness made by the Daêvas, and the clouds cannot reach up unto the Haraiti Bereza, a dwelling that all the Amesha-Spentas, in one accord with the sun, made for him in the fulness of faith of a devoted heart, and he surveys the whole material world from the Haraiti Bereza." * The second time she was seized by Thraetaona, the sun-god who ended the long continuous night by killing Azi Dahâka, the three-mouthed, the three-headed,

* Mibir Yast, 50-51.

the six-eyed demon.* The third time, the Glory was seized by Keresâspa, the solar hero bringing the ordinary night to an end, "who killed the snake Srvara, the horse-devouring, man-devouring yellow, poisonous snake." The term *srvara* is equivalent to Sanskrit *sarvari*, night. That Keresâspa was the sun-god of the ordinary day is proved by the account that is given of his adventure with Srvara. "Upon him Keresâspa was cooking his food in a brass vessel: at the time of noon, the fiend felt the heat, and stood upon his feet: he rushed from under the brass vessel and upset the boiling water: the manly-hearted Keresâspa fell back affrighted." § After noon the fiend of darkness asserted itself, the boiling celestial waters were upset, Keresâspa fell back and night commenced.

ARDVI SURA ANAHITA.

In the Avesta the celestial light is also invoked in another name. She, Ardvi Sura Anâhita represents celestial waters, the flow of which brings the twilight and the sun, and to her all the gods of light pray for a boon that will make them victorious over demons of darkness. Ahura Mazda says unto Spitama Zarathustra that she is "the large river, known afar, that is as large as the whole of the waters that run along the earth; that runs powerfully from the height

* Zamyad Yast, 36-37.

§ Zamyad Yast, 38-40.

Hukairya (the celestial mountain) down to the sea Vouru-Kasha (the earth surrounding ocean).

"All the shores of the sea Vouru-Kasha are boiling over, all the middle of it is boiling over when she runs down there, when she streams down there, she, Ardvi Sura Anâhita, who has a thousand cells and a thousand channels: the extent of each of those cells, of each of those channels is as much as a man can ride in forty days, riding on a good horse." *

"Strong and bright, tall and beautiful of form she sends down, by day and night, a flow of motherly waters as large as the whole of the waters that run along the earth." §

She is prayed to come down from the stars,† and it is feared lest she should go up again into the heavens, steeping the world in darkness. It is evidently with great perturbation of mind that Zarathustra asks her: "O Ardvi Sura Anâhita! With what manner of sacrifice shall I worship thee? With what manner of sacrifice shall I worship and forward thee? So that Mazda may make thee run down (to the earth), that he may not make thee run up into the heavens, above the sun; and that the serpent may not injure thee." ‡

* Aban Yast, 3-4.

§ *Ibid*, 15.

† *Ibid*, 85.

‡ *Ibid*, 90.

She is of unsurpassing beauty and clad in gold and brilliant gems. "She stands carried forth in the shape of a maid, fair of body, most strong, tall-formed, high-girded, pure, nobly born of a glorious race, wearing a mantle fully embroidered with gold ;

"She wears square golden earrings, and a golden necklace around her beautiful neck.

"Upon her head Ardvi Sura Anâhita bound a golden crown, with a hundred stars, with eight rays." *

This description, superbly artistic and gorgeous as it is, leaves almost nothing to be desired in order to identify Ardvi Sura Anâhita as the goddess of celestial light.

VAFRA NAVAZA.

Among the host of her celestial and terrestrial worshippers was a certain Vafra Navâza whom "the strong fiend-smiter Thraetaona flung up in the air in the shape of a bird, of a vulture." § Now, Thraetaona was the smiter of the three-headed Azi Dahâka, the demon of three months' continuous night, so that the throwing up of Vafra Navâza in the shape of a vulture or eagle occurred during the long night. It is only the Mahabharata story of the birth of Garurha during the long night told in a slightly different form. The Avestic text also clearly says that

* Aban Yast, 125—128.

§ *Ibid.*, 61.

it was during a long night that the incident occurred. "He went on flying, for three days and three nights, towards his own house; but he could not, he could not turn down. *At the end of the third night, when the beneficent dawn came dawning up* then he prayed unto Ardvi Sura Anâhita." * The italics are ours. The passage clearly says that "the dawn came dawning up" at the end of the third night after Vafra Navâza had appeared in the firmament in the shape of an eagle. Here also we find only a slightly altered version of the Mahabharata story of the commencement of dawn shortly after the birth of Garurha. As the dawn appeared, "Ardvi Sura Anâhita hastened unto Vafra Navâza." "She seized him by the arm: quickly was it done, nor was it long till, speeding, he arrived at the earth made by Mazda and at his own house, safe, unhurt, unwounded, just as he was before." § Vafra Navâza returned to the earth with Ardvi Sura Anâhita and the long night ended. We have thus, in this Avestic legend, all the essential parts of the Mahabharata legend relating to Garurha or the Eagle saliently set forth within a small compass.

THE EAGLE'S GREAT POWER.

The part which the constellation Aquila played in the annual struggle between light and

* Aban Yast, 62.

§ *Ibid*, 65.

darkness in the ancient arctic home of the Aryans made its prototype, the terrestrial eagle, an object of peculiar respect and wonder for them. Their tree in the celestial waters was inhabited by it, their long night commenced with the sun in its vicinity, their Winter Solstice occurred at the time of its first visibility during the long night, their long night ended with its brilliant stars setting below their horizon, their long day began with the full moon in its clutches. Indeed, it was so powerful that the mighty lord Verethraghna was compared to it. "He," says the Avesta, "is like that mighty bird, the Saêna." * The bird was, consequently, associated in the minds of its arctic observers with struggle and conquest, with war and victory, with destruction of foes and triumph of friends. A step further and they were led to attribute magical powers to the bird, powers to bring victory to whoever used it as an instrument. The eagle-crested chariot of Vishnu is unconquerable; Loki puts on a feather-garment when he goes to recover Thor's hammer from Thrym; and Mithra always takes with him falcon-feathered arrows when fighting with Daêvas and Varenya fiends. § Finally, a feather or a bone of the bird came to be believed as a remedy for spells

* Bahram Yast, 41.

§ Mibir Yast, 101.

and curses. "Zarathustra asked Ahura Mazda : 'If I have a curse thrown upon me, a spell told upon me, by the many men who hate me, what is the remedy for it ?'

Ahura Mazda answered : Take thou a feather of that bird, the Vârenjana (the raven). With that feather thou shalt rub thy own body, with that feather thou shalt curse back thy enemies.

'If a man holds a bone of that strong bird or a feather of that strong bird, no one can smite or turn to flight that fortunate man.

'All tremble before him who holds the feather ; they tremble, therefore, before me : all my enemies tremble before me and fear my strength and victorious force and the fierceness established in my body.' *

Just as Vishnu has the bird on the crest of his chariot and is thus made invincible so Ahura Mazda holds a feather of it and, consequently, "all tremble before him." And as Hindu Mythology makes the bird Vishnu's *vahan* or bearer, so the Avesta makes it carry the chariot or chariots of lords and sovereigns who are primarily only solar heroes. "He carries the chariot of the lords ; he carries the chariot of the lordly ones, the chariots of the sovereigns. He carried the chariot of Kavi Usa : Upon his wings runs the male horse, runs the burden-bearing camel, runs the water of the

* Bahram Yast, 34, 35, 36, and 38.

river. Him rode the gallant Thractaona, who smote Azi Dahâka, the three-mouthed, the three-headed, the six-eyed, who had a thousand senses, that most powerful fiendish Druj, that demon, baleful to the world, the strongest Druj that Angra Mainyu created against the material world, to destroy the world of the good principle." *

CYCNUŠ, OPHIUCHUS AND THE MILKY WAY.

We would here like to throw out to the reader a surmise and a suggestion which analogy forces us to make, but of the correctness of which we cannot be sure. In the Mahabharata legend of Garurha, the bird is said to have flown up with two huge animals, a monstrous tortoise and an elephant, in its talons, and also to have broken a branch of a gigantic tree from which hang innumerable pigmy saints called Vâ lakhilyas. (This latter incident is not mentioned in our summary of the legend given at the beginning of Chapter I.) And the Avesta says that upon the wings of the bird "runs the male horse, runs the burden-bearing camel, runs the water of the river." Now, if we identify the legendary eagle with the constellation Aquila we can also by analogy identify the two animals borne by the former with the two big and prominent constellations Cygnus and Ophiuchus lying on both sides of the latter. As for the third thing carried by the eagle it may be suggested that as the bigger

* Bahram Yast, 39 and 40.

stars are often identified with gods and rishis, the tiny stars of the milky way may be identified with the pigmy Vâlakhilya saints, the branch from which they hang standing for a branch of the milky way. Aquila, Cygnus and Ophiuchus lie on the milky way and in that part of it where it is broken and bifurcated. The river mentioned in the Avesta is the Ranghâ, the equivalent of the Vedic Rasâ, the mythical river which "flows round the world" (R. V., IX, 41, 6) and on whose banks are sacrifices and libations offered to gods and goddesses (Aban Yast, 63 and 80). Consequently, this river also can be identified with the galaxy.

TISTRYA AS A WHITE HORSE.

The Avesta also contains clear references to the "white, beautiful horse, with golden ears and a beautiful caparison." In the Veda Indra and the Asvins are described as riding the white horse while fighting with demons of darkness. In the Avesta, however, Tistrya and Verethraghna are described as fighting with them *in the shape of* a white horse. The demon Apaosha stops the flow of celestial waters and causes a drought. Tistrya fights with it, first, in the shape of a man of fifteen years of age, next, in the shape of a golden-horned bull, and, lastly, in the shape of the white horse. He is first overcome by it, but at last he conquers it. The reference is so clear and the characters and circumstances

are so identical that we can at once see in the white-horse-shaped Tistrya or Verethraghna an exact counterpart of the white horse of Indra and the Asvins or the white horse of Zeus moving along the southern horizon during the dark and dreary night of the ancient arctic Aryans, fighting, as it were, with the demon which causes the long darkness and overcoming it in the end. The constellation Pegasus, visible, as we have said before, during the long night only, was conceived as a god of light fighting with darkness. "The bright and glorious Tistrya goes down to the sea Vouru-Kasha in the shape of a white, beautiful horse, with golden ears and a golden caparison."* When once the primitive Aryans conceived the constellation Pegasus as a god of light struggling against darkness, they naturally asked themselves why the god should have taken the shape of a horse. The solution of the question lay, in their minds, in assigning to the Daeva Apaosha also the shape of a horse, dark and invisible. So they thought there rushed down to meet Tistrya "the Daeva Apaosha, in the shape a dark horse, black with black ears, black with a black back, black with a black tail, stamped with brands of terror."§ The struggle and contest is so beautifully described in the Avesta that we must quote the

1 Tir Yast, 20.

§ *Ibid*, 21.

account at some length in order to show the reader how it confirms the theory of long continuous darkness in the primitive home of the Aryans :—

“They meet together, hoof against hoof, O Spitama Zarathustra ! the bright and glorious Tistrya and the Daeva Apaosha. They fight together , O Spitama Zarathustra ! for three days and three nights. And then the Daeva Apaosha proves stronger than the bright and glorious Tistrya, he overcomes him.

And Tistrya flees from the sea Vouru-Kasha as far as Hathra’s length. He cries out in woe and distress, the bright and glorious Tistrya : ‘woe is me, O Ahura Mazda ! I am in distress, O waters and Plants ! O Fate and thou, Law of the worshippers of Mazda ! Men do not worship me with a sacrifice in which I am invoked in my own name &c.’

Then, O Spitama Zarathustra ! the bright and glorious Tistrya goes down to the sea Vouru-Kasha in the shape of a white, beautiful horse, with golden ears and a golden caparison.

But there rushes down to meet him the Daeva Apaosha in the shape of a dark horse, black with black ears, black with a black back, black with a black tail, stamped with brands of terror.

They meet together hoof against hoof, O Spitama Zarathustra ! the bright and glorious

Tistrya and the Daeva Apaosha; they fight together, O Zarathustra, till the time of noon, then the bright and glorious Tistrya proves stronger than the Daeva Apaosha, he overcomes him.

Then he goes from the sea Vouru-Kasha as far as Hathra's length: 'Hail!' cries the bright and glorious Tistrya, 'Hail unto me, O Ahura Mazda! Hail unto you, O Waters and Plants! Hail, O Law of the worshippers of Mazda! Hail will it be unto you, O Lands! The life of the waters will flow down unrestrained to the big-seeded cornfields, to the small-seeded cornfields, and to the whole of the material world.'

Then the bright and glorious Tistrya goes back down to the sea Vouru-Kasha, in the shape of a white beautiful horse, with golden ears and a golden caparison.

He makes the sea boil up and down; he makes the sea stream this and that way; he makes the sea flow this and that way: all the shores of the sea Vouru-Kasha are boiling over, all the middle of it is boiling over.

And the bright and glorious Tistrya rises up from the sea Vouru-Kasha, O Spitama Zarathustra! the bright and glorious Satavaësa rises up from the sea Vouru-Kasha; and vapours rise up above Mount Us-hindu, that stands in the middle of the sea Vouru-Kasha.

Then the vapours push forward, in the regular shape of clouds (?); they go following the wind, along the ways which Haoma traverses, the increaser of the world. Behind him travels the mighty wind made by Mazda, and the rain and the cloud, and the sleet, down to the several places, down to the fields, down to the seven Karshvares of the earth.

Apâm Napât, O Spitama Zarathustra ! divides the waters among the countries in the material world, in company with the mighty wind, the Glory, seated in the waters, and the Fravashis of the faithful.”*

The contest between the white horse and the Daeva Apaosha is divided into three parts, in the first of which the white horse is defeated, in the second Apaosha is overcome and in the third the sea is made to flow. These three stages represent the beginning, the middle and the end respectively of the long continuous night. In the first stage, the white horse goes down to the sea Vouru-Kasha, the abode of Apaosha, but the Daeva proves stronger and Tistrya is vanquished and driven away in woe and distress. In the second stage, Tistrya no doubt vanquishes Apaosha, fighting till the time of noon, but he has still to go away from the sea, predicting, however, that “the life of the waters will flow

* Tir Yast, 22, 23, and 26 to 34.

down unrestrained to the whole of the material world." In the third stage, the white horse makes the sea Vouru-Kasha boil all over and the waters are thoroughly disturbed and made to flow in all directions; the bright and glorious gods of light put forth their appearance; and the vapours that were pent up in the mountain situated in the middle of the sea Vouru-Kasha begin to rise up. This story is only a repetition of the Vedic story of the captivity and liberation of celestial waters. As this struggle between light and darkness is an annual one, its middle must be marked by the Winter Solstice, the middle or the noon of the year. And it is at this noon of the year or Winter Solstice that Apaosha is said to have been first vanquished by Tistrya and the flow of celestial waters predicted. The mountain Us-hindu is analogous to the mountain (*adri*) in which Vritra confines the waters in the Vedic story. All these considerations prevent us from thinking that Apaosha was simply a demon of rainlessness. The uranographical side of its character is more conspicuous than its meteorological side. The vapours or waters which are let loose from the sea Vouru-Kasha are said to "go following the wind along the ways which Haoma traverses." Haoma is the Vedic Soma and that it is only a mythical form of the moon is proved beyond doubt by the fact that Ahura Mazda is said to have "first lifted

up Haomas, in a mortar inlaid with stars and made of a heavenly substance.”* Now, during the long continuous night only the moon shone in the firmament, so that at its close the waters were quite properly described as following its path. Besides this, it should be noted that as the path of the moon and that of the sun are very near each other, the latter luminary might very well be said to follow the path of the former. Again, at the end of the Tistrya legend, Apâm Napât is said to “divide the waters amongst the countries in the material world in company with the mighty wind, the Glory, seated in the waters, and the Fravashis of the faithful.” Apâm Napât, or the child of the waters, is the sun that rises out of the waters confined during the long night, the mighty wind is the celestial wind which causes the flow of all heavenly bodies and the Glory is, as we have shown before, sunlight. This imagery is exactly similar to the one used in the Rig Veda to express the relation between Vayu, or Wind, and the appearance of solar light. With his characteristic eloquence the Vedic bard says :—

“Two red steeds Vayu yokes, Vayu two purple steeds, swift-footed, to the chariot, to the pole to draw, most able, at the pole, to draw.

Wake up intelligence, as when a lover wakes his sleeping love. Illumine heaven and earth,

* Mihir Yast, 90.

make thou the Dawns to shine, for glory make the Dawns to shine.

For thee the radiant Dawns in the far-distant sky broaden their lovely garments forth in wondrous beams, bright-coloured in their new-born beams.

For thee the nectar yielding Cow pours all rich treasure forth as milk.

The Marut host hast thou engendered from the womb, the Maruts from the womb of heaven" (R. V., I, 134, 3 and 4). Again, "Come thou with hundreds, come with thousands in thy team to this our solemn rite, to taste the sacred food, Vayu, taste the offerings.

This is thy seasonable share, that comes cor-radiant with the sun" (R. V., I, 135, 3).

It is Vayu that makes the lovely Dawns, the charming and bright-coloured many Dawns of the long continuous night, to shine, and the offering that is made to him comes "cor-radiant with the sun." Not content with merely stating this fact, the bard goes on to allegorise and say that for Vayu "the radiant Dawns in the far distant sky broaden their lovely garments forth." Once the ball is set rolling the play of language and the consequent mystification of thought cannot end here. Once you imagine that the lovely Dawns spread out their charms for Vayu, you must proceed further and bring the two parties closer and closer together till

they are locked in each other's arms, for such is the way of love. As a poet you will not then care for mortal decency or propriety and the ephemeral dicta of morality, stinking with the dirt and corruption of impure human mind, will have no influence on you. Indeed, we find the Vedic bard unhesitatingly conceiving Vayu as the husband of Dawn and son-in-law of Tvashtar whose daughter she is, although in the Rig Veda she is principally the spouse of Surya or Sun. Thus we clearly understand what the Rishi means when he says :—

“Wonderful Vayu, Lord of Right, thou who art Tvashtar's son-in-law,

Thy saving succour we elect.

To Tvashtar's son-in-law we pray for wealth whereof for glory we seek Vayu” (R. V., VIII, 26, 21 and 22).

Our theory supplies the true key to these verses to which commentators have so long failed to give any satisfactory interpretation.

So much evidence crowding together only to confirm each other, we are led to believe that the Tistrya legend of the Avesta is only a mythical representation of a long night of three months, and that the white horse is no other than the constellation Pegasus as it was visible to an arctic people about 4000 B. C. and the remembrance of which lingers in the Hindu Mythology in the shape of Uchchaihsrava or the white

horse of Indra and the Asvins, in the Greek Mythology in the shape of the winged thundering horse of Zeus and in the Norse Mythology in the shape of the white horse of Odin or Nykur, the long Horse. It is the horse which carried the sun-gods of the ancient forefathers of modern Aryans through the thick of their battles with demons of darkness and crowned them with victory in the long run. Verethraghna, the best-armed of the heavenly gods, came to Ahura "in the shape of a white, beautiful horse, with yellow ears and a golden caparison ; upon whose forehead floated the well-shaped Strength, and Victory, beautiful of form, made by Ahura ; thus did he come, bearing the good Glory, made by Mazda, that is both health and strength" and destroying "the malice of all malicious" *

AZI DAHAKA AND TRISIRAS.

The identity between the Avestic Azi and the Vedic Ahi is beyond doubt, the one being only a phonetic variation of the other and both meaning a serpent. There are many serpents in both the Avesta and the Veda, but the most powerful of them all is, in the former, Azi Dahâka, and, in the latter, Vritra. They are the greatest enemies of gods of light and are most powerful during the prevalence of darkness. We have shown before how the Vritra legend of the

* Bahram Yast, 9.

Veda is explained by identifying Vritra with the constellation Hydra as it appeared to an arctic inhabitant about 4000 B. C. Vritra represents night throughout the year, is most powerful during the long continuous night and is killed at the beginning of the long continuous day. This story is repeated in the Avesta in the life of Azi Dahâka. Night in an arctic latitude has two aspects, it is sometimes like the night of the temperate and torrid zones and sometimes continuous and lasting for days or months together; and both these aspects are represented in the life of Azi Dahâka. As the demon of the long continuous night it is three-mouthed, three-headed, six-eyed, and is conquered and fettered by Thraetaona, and as that of ordinary nights it is finally killed by Keresâspa, the solar-hero. His three heads represent the three months of continuous night and have their counterpart in the three heads of the demon Trisiras, the son of Tvashtar, in the Veda. Azi Dahâka in the character of the three-headed demon is killed by Thraetaona Athwya, and Trisiras is killed by Trita Aptya. Scholars agree in identifying Thraetaona Athwya with Trita Aptya, so that the three-headed Azi Dahâka is at once identified with the three-headed Trisiras. Indeed, the description and fate of the one are so similar to those of the other, that one who is not acquainted with the theory of a primitive single home of all Aryans is apt

to think that either the Veda has copied from the Avesta or the Avesta from the Veda.

We shall place the two accounts side by side before the reader :—

THREE-HEADED AZI
DAHAKA.

“ To her (Ardvi Sura Anâhita) did Thrateaona, the heir of the valiant Athwya clan, offer up a sacrifice in the four-cornered Varena, with a hundred male horses, a thousand oxen, ten thousand lambs.

He begged of her a boon, saying :— ‘Grant me this, O good, most beneficent, Ardvi Sura Anâhita that I may overcome Azi Dahâka, the three-mouthed, the three-headed, the six-eyed, who has a thousand senses, that most powerful, fiendish Druj, that demon, baleful to the world, the strongest Druj that Angra Mainyu created against the material world to destroy the world of the good principle ; and that I may deliver his two wives

THREE-HEADED TRISIRAS.

Through his wise insight Trita in the cavern, seeking as ever the Chief Sire’s intention,

Carefully tended in his Parents’ bosom, calling the weapons kin, goes forth to combat,

Well-skilled to use the weapons of his father, Aptya, urged on by Indra, fought the battle,

Then Trita slew the foe seven-rayed, three-headed, and freed the cattle of the son of Tvashtar.

Lord of the brave, Indra cleft him in pieces who sought to gain much strength and deemed him mighty.

He smote his three heads from his body, seizing the cattle of the omniform son of Tvashtar.

Savanghavach	and	tar.”—Rig Veda, X, 8,
Evenavach, who are		7-9.
the fairest of body		
amongst women, and		
the most wonderful		
creatures in the world’.		

Ardvi Sura Anâhita
granted him that boon”—
Aban Yast, 33-35.

“The four-cornered Varena,” in which Thraetaona Athwya offers up a sacrifice to Ardvi Sura Anâhita, the goddess of light, is equivalent to “the cavern” in which Trita is carefully tended in the bosom of “the paternal heaven and earth” (Wilson) and calling the fit weapons of war, that is, the darts of light, goes forth to battle. The two wives of Azi Dahâka, who are the fairest of body amongst women and the most wonderful creatures in the world,” are “the two daughters of Yima, who had been ravished by Azi : Thraetaona delivered them and then married them” * Now, we have shown before that Yima is the god of ordinary nycthemerons, so that his two daughters are the evening and the morning twilight. They are ravished by Azi Dahâka during the long night, but Thraetaona releases and marries them. Twilight first lives with darkness, but is at last married to the sun. Another important point relating to the three-headed demon is that neither in the Avesta nor in the Veda is its final des-

* Darmesteter, Vol. XXIII, S. B. E. S., p 62, foot-note.

truction ascribed to Thraetaona or Trita. In the Iranian legend it is conquered by Thraetaona and bound to a mountain where it remains till let loose and killed by Keresâspa. Likewise in the Vedic legend its final destruction is ascribed not to Trita but to Indra. This brings us to the second aspect of the demon's character, the aspect of its representing ordinary nights. We have shown before that in the Vedic legend of Vitra the Ahi is not totally destroyed till the beginning of the long continuous day. The Avestic legend of the final destruction of Azi Dahâka by Keresâspa also tells the story of the Azi's destruction at the same period of the arctic year.

THE STRUGGLE FOR GLORY.

Another story about Azi Dahâka deserves notice. In Zamyad Yast it is said that when Glory departed from Yima the Good Spirit and the Evil One did struggle with one another for it. The Good Spirit flung a dart, and so did the Evil Spirit also. Then came forward Atar, the god of fire, desiring to seize that Glory. But Azi Dahâka, the three-mouthed, rushed on his back, thinking of extinguishing it. "Here give it up to me, O Atar, son of Ahura Mazda ; if thou seizest that Glory that cannot be forcibly seized, I shall rush upon thee, so that thou mayest never more blaze on the earth." Atar took back his hands, so much had

Azi frightened him. Then Azi rushed forward desiring to seize that Glory. But Atar advanced behind him and said, "There give it up to me. If thou seizest that Glory, I will enter thy hinder part, I will blaze up in thy jaws, so that thou mayest never more rush upon the earth made by Mazda." Then Azi took back his hands, so much had Atar frightened him. At last the swift-horsed Son of the Waters, Apâm Napât, seized it. * This story does not require much elucidation. It establishes the character of Azi Dahâka and explains that of Apâm Napât. After Glory or sunlight has forsaken Yima or the nycthemeron, Atar, the fire-god of the long night, and Azi Dahâka struggle with each other for its possession. Both of them, however, fail to seize it. It then passes to Apâm Napât and the long night comes to an end.

THE LONG CONTINUOUS DAY.

Subsequently, the Turanian ruffian Frangrasyan tried to seize the Glory in the sea Vourukasha. "He stripped himself naked, wishing to seize that Glory that belongs to the Aryan nations, born and unborn, and to the holy Zarathustra. But the Glory escaped." A second and a third time the ruffian attempted to seize it, but each time it escaped. § This is a reference to the long continuous day of three months during

* Zamayad Yast, 46-51.

§ *Ibid*, 56-64.

which the Evil Spirit is baffled in its attempts to lay hold of the Glory and bring on darkness. It is the long day during which Ahura Mazda offers up a sacrifice to Mithra, its presiding sun-god, in the shining Garônmâna or Paradise. * "After he has smitten the Daêvas, after he has smitten down the men who lies unto Mithra, Mithra, the lord of wide pastures" drives forward through the seven regions. Angra Mainyu, who is all death, flees away in fear; Aêshma, the evil-doing Peshotanu, flees away in fear; the long-handed Bushyasta flees away in fear; all the Daêvas unseen and the Varenya fiends flee away in fear." §

* Mihir Yast, 123.

§ *Ibid*, 133-134.

CHAPTER VI.

THE EVIDENCE OF THE BRAHMANAS.

We began this discourse on the legend of the Eagle by recapitulating the Mahabharata version of it, the version in which it is best known to all Hindus. We then showed that the substance of the Mahabharata story was borrowed from the Rig Veda, the great fountain-head of Pauranic legends. Once having traced the myth to the Veda we were led to enquire what forms and characters the primitive Eagle of the arctic and united Aryans had assumed in other Aryan mythologies which now lie scattered almost dead and forgotten in other parts of the world. And the reader has seen that our sojourn in the temperate and arctic latitudes of Greece, Ireland and Scandinavia has not been unsuccessful. From Scandinavia we came down to Persia and the Iranian Mythology failed not to supply us with unmistakable evidence of the continuity of the uranographic conception of the eagle held by the primitive arctic Aryan. It now remains for us to close the circuit of our research by returning to India and seeking to find out the steps by which the simple Rig Vedic legend was evolved into the gorgeous and elaborate story we find in the Mahabharata. From the Vedas we,

therefore, pass on to the Brahmanas, the greatest sacrificial literature of the Brahmins and perhaps the most ancient commentaries on the Vedas.

THE BRAHMANAS.

The Brahmanas, however, mark a period of Hindu life when the Hindus had long been established in the Land of Five Rivers and when their memory of the original home of united Aryans was almost, if not altogether, forgotten. The Veda had long ceased to grow and expand and its hymns had already been collected, classified and arranged. Even the oldest, wisest and most learned of men did not then know when and under what conditions most of these hymns had been composed and sung. Indeed, they had already passed, in the Hindu mind, from the sphere of human creation to that of divine revelation. The Veda had already become the highest religious book of the Hindus and the Brahmanas became its expounders. The peculiar physical environments which had inspired the ancient Vedic bards with poetic and metaphysical rapture were completely lost sight of, and, consequently, some of the Vedic stories became unintelligible. But still the Veda, which had become the soul of the religious life of the Hindus, had to be explained, and the most learned, pious and highly gifted Brahmins spared themselves no pains over its interpretation. The

utmost that they could, however, do was to assign quasi-metaphysical and circumlocutory meanings to simple Vedic stories and force them with all their scholiastic acumen into the mould of ritualism. An instance of this sort of interpretation is to be found in the manner in which the three principal metres, Trishtup, Jagati and Gâyatri, and principally the Gâyatri, have been made in the Brahmanas to take the place of the *syena* or Eagle as conqueror of Soma. The reasons which led the learned Brahmins to make this innovation, and an innovation they were bound to make for want of a knowledge of the true character of the *syena*, can be easily discovered by a little investigation.

THE METRES OF MANDALA IX.

The first thing that strikes the student in making this investigation is the fact that most of the 114 Soma Pavamana hymns of Mandala IX of the Rig Veda are composed in the three metres, Trishtup, Jagati and Gâyatri. An inspection of the following table of metres for the ten Mandalas of the Rig Veda will show how these three metres predominate in the IXth Mandala more than in the other Mandalas:—

	Total Number of hymns.	Number in Gâyatri pure.	Number in Trishtup pure.	Number in Jagati pure
Mandala I	191	32	49	12
Mandala II	43	2	17	6

Mandala III	62	5	31	3
Mandala IV	58	7	28	1
Mandala V	87	7	20	5
Mandala VI	75	3	40	1
Mandala VII	104	1	74	2
Mandala VIII (with the Vāla Khilya hymns)	103	24	2	2
Mandala IX	114	64	11	12
Mandala X	191	12	57	9

It thus appears that of all the Mandalas the IXth Mandala contains a preponderance of the Gâyatri metre ; indeed, more than one half of it (64 hymns out of 114) is composed in this metre. Of the remaining 50 hymns 11 are composed in Trishtup and 12 in Jagati pure. Of the rest 11 again are composed partly in Gâyatri, partly in Trishtup and partly in Jagati. Consequently there remain only 16 hymns, and those only the last 16, which are composed purely in other metres. No wonder, therefore, that, for want of a better explanation, the authors of the Brahmanas should have made the three metres, and principally the Gâyatri, take the disguise of birds and occupy the place of the *syena* or Eagle in the exploit of conquering the Soma.

THE AITAREYA BRAHMANA'S VERSION OF THE LEGEND.

The Aitareya Brahmana, consequently, relates the story as follows :—

“The King Soma lived (once) in the other world (in heaven). The gods and rishis deli-

berated : how might the King Soma be induced to come to us ? They said, 'Ye metres must bring back to us this King Soma'. They consented. They transferred themselves into birds. That they transferred themselves into birds (suparnâ) and flew up is called by the knowers of stories *suparnam* (that is, this very story is called so). The metres went to fetch the King Soma. They consisted at that time of four syllables only ; for (at that time) there were only such metres as consisted of four syllables. The Jagati with her four syllables first flew up. In flying up she became tired after having completed only half the way. She lost three syllables, and being reduced to one syllable, she took (from heaven) with her (only) the *Diksha* and *Tapas*, and flew back (to the earth). He who has cattle is possessed of *Diksha* and possessed of *Tapas*. For cattle belong to Jagati. Jagati took them.

Then the Trishtup flew up. After having completed more than half the way, she became fatigued, and throwing off one syllable, became reduced to three syllables, and taking (with her) the *Dakshina*, flew back (to the earth). Thence the *Dakshina* gifts (sacrificial rewards) are carried away (by the priests) at the midday libation (which is) the place of the Trishtup ; for Trishtup alone had taken them (the *Dakshina* gifts).

The gods said to the Gâyatri, 'Fetch thou the

King Soma.' She consented, but said, 'During the whole of my journey (up to the celestial world) you must repeat the formula for wishing a safe passage for me. The gods consented. She flew up. The Gods repeated throughout her passage the formula for wishing a safe passage, viz, *pra châ châ*, go and come back and come back. For the words, *pra chá chá*, signify that the whole journey was made in safety. He who has a friend (who sets out on a journey) ought to repeat this formula; he then makes his passage in safety, and returns in safety.

The Gâyatri, when flying up, frightened the guardians of Soma, and seized him with her feet and bill, and (along with him) she also seized the syllables which the two other metres (Jagati and Trishtup) had lost. Krisanu, (one of) the guardians of the Soma, discharged an arrow after her, which cut off the nail of her left leg. This became a porcupine.

(The porcupine having thus sprung from the nail which was cut off) the Vasa (a kind of goat) sprung from the marrow (*vasâ*) which dripped from the nail (cut off). Thence this goat is a (suitable) offering. The shaft of the arrow with the point (discharged by Krisanu) became a serpent which does not bite (*dundubha* by name). From the Vehemence with which the arrow was discharged, the snake *svaja* was produced; from the feathers, the shaking

branches which hang down (the airy roots of the *Asvattha*); from the sinews (with which the feathers were fastened on the shaft) the worms called *gandupada*, from the fulmination (of the steel) the serpent *audháhi*. Into such shapes was the arrow (of Krisanu) transformed." (Martin Haug's translation of the Aitareya Brahmana III, 3, 25-26).

THE VEDIC BASIS OF THE ABOVE.

"On flows that Ancient One whom, hitherward, from heaven sped through the region of the air, the Falcon snatched.

He, quivering with alarm and terrified in heart before bow-armed Krisanu holdeth fast the sweet."

Thus says the Rig Veda in one of the Jagati hymns of the IXth Mandala (IX, 77, 2). The Aitareya Brahmana, therefore, begins the story by remarking, "The King Soma lived (once) in the other world (in heaven). The gods and rishis deliberated: how might the King Soma be induced to come to us?" The substance of the rest of the story seems to have been taken by the Brahmana mainly from the following semi-metaphysical and mystic verses of the 164th hymn of Mandala I:—

20. Two *suparnas*, knit with bonds of friendship, in the same sheltering tree have found a refuge.

One of the twain eats the sweet Fig-tree's fruitage ; the other eating not regardeth only.

21. Where *suparnas* hymn ceaselessly (or take off ceaselessly) their portion of *amrita* as in duty bound,

There is the universe's mighty Keeper, who, wise, hath entered into me the simple.

22. The tree whereon the *suparnas*, eating sweetness, all rest and procreate (bring forth light) on the universe,

Upon its top they say the fig is luscious : none gaineth it who knoweth not the Father.

23. How on the Gâyatri the Gâyatri was based, how from the Trishtup they fashioned the Trishtup forth,

How on the Jagati was based the Jagati— they who know have won themselves immortal life.

24. With Gâyatri he measures out the Arka (praise song), Sâma with Arka, Vâk with the Trishtup,

The Vâk with the two or four-foot measure and with the letter (syllable) they form seven metres.

25. With Jagati the flood in heaven is established, and saw the sun in the Rathantara Sâman.

The Gâyatri hath, they say, three brands (feet) for kindling : hence it excels in majesty and vigour.

[20. Dvâ suparnâ sayujâ sakhâyâ samânam
briksham parishasvajâte.

Tayoranyah pippalam svâdvattyanasnannanyo
abhi châkasîti.

21. Yatrâ suparnâ amritasya bhâgamanime-
sham bidathâbhismaranti.

Ino visvasya bhuvanasya gopâs sa mâ dhîrah
pâkamatrâ bibesa.

22. Yasmin brikshe madhvadah suparnâ
nibisante subate châdhi visve.

Tasyedâhuh pippalam svâdvgre tannonna-
sadyah pitaram na veda.

23. Yadgâyatre adhi gâyatramâhitam traish-
tuvâdva traishtubham niratakshata.

Yadvâ jagajjagatyâhitam padam ya ittadvi-
duste amritatvamânasuh.

24. Gâyatrena prati mimîte arkamarkena
sâmatraishtubhena vâkam.

Vâkena vâkam dvipadâ chatushpadâksharena
mimate sapta vânih.

25. Jagatâ sindhum divyastabhâyadrathan-
tare suryam paryapasyat.

Gâyatrasya samidhastisra âhustato mahnâ
praririche mahitvâ.]

THE MYSTICISM OF R. V., I, 164.

The 164th hymn of Mandala I from which
these verses are quoted is one of the most mys-
tic hymns of the Rig Veda. It contains some of the
most abstruse quasi-physical and quasi-meta-

physical speculations of the Vedic rishi. It marks that stage in the progress of the human mind where the material appears insipid and man seeks to satisfy his hankering after what lies beyond the material by blending, in his mind, the material with the immaterial, by seeing in the one the elements of the other, by conceiving the visible material world to be only a shadow of an invisible and immaterial world.

The language in which man expresses himself when in such a mood naturally becomes ambiguous and capable of taking different interpretations, each true in its own line. But this does not warrant anybody in mixing up and deforming the different originals of these different interpretations. In fact, so long as the true imports of these originals are not forgotten, there occurs no danger of any such promiscuous intermingling.

SUPARNA.

This will be evident from a consideration of the word *Suparna* in the above verses. The word *suparna* means, literally, nice-feathered or fair-winged, and is hence generally used in Sanskrit literature as a common epithet of beautiful birds. But we can easily conceive of the sun and the moon, day and night, and even *Jivâtma* (individual soul) and *Paramâtma* (universal soul) as nice-feathered or fair-winged

and so call them also *Suparna*. The verse, "Two suparnas, knit with bonds of friendship, in the same sheltering tree have found a refuge. One of the twain eats the sweet fig-tree's fruitage; the other eating not regardeth only.", containing the word *suparna* in a dual form, is, consequently, capable of taking different interpretations. The fig-tree may be taken to be the tree of the world or the tree of life. The verse may, therefore, be justly considered to refer to *Jīvâtṃā* and *Paramâtṃā*, and its second half which says, "One of the twain eats the sweet fig-tree's fruitage; the other eating not regardeth only," makes this interpretation appear the most likely and reasonable one at first sight, and this is the interpretation which Sayana has given to it. But when we consider this verse along with the just preceding one it seems to be capable of a quite different and an equally, if not more, reasonable interpretation. The line just preceding the verse says, "What ye have made, Indra and Soma, steeds bear as it were yoked to the region's car-pole." Commentators are unanimous that "what" Indra and Soma are here said to "have made" are the sun and the moon which are carried round, bound as it were to the region's car-pole. Considering the context, therefore, it would be quite proper to take the two *suparnas* to be the sun and the moon. But then there remains the difficulty of explaining the

hemistich, "One of the twain eats the sweet fig-tree's fruitage; the other eating not regardeth only." This difficulty is, however, removed if we apply this description to a physical condition when the moon is visible during sunshine. The sun lighting and vivifying the world with his brilliant and scorching rays would seem to be the enjoyer of the world-tree's fruitage, while the moon would be considered only as regarding the world with a philosophic eye like a yogi who has risen above the desires of the world and is unaffected by all mundane concerns. This moon is the moon "who has assumed the rays of Surya for his robe" (R. V., IX, 86, 32), who, "like Surya, follows closely after dawn" (R. V., IX, 84, 2) and who is "cleansed as it were near the sun" (R. V., IX, 97, 38). This explanation, again, preserves the continuity of the context in the next two verses which are:—

"21. Where suparnas hymn ceaselessly (or take off ceaselessly) their portion of amrita as in duty bound,

There is the Universe's mighty Keeper, who wise, hath entered into me the simple.

22. The tree whereon the suparnas, eating sweetness, all rest and procreate (bring forth light) on the Universe,

Upon its top they say the fig is luscious, none gaineth it who knoweth not the Father."

Now, if the sun and the moon can be considered as suparnas or nice-featherd birds, it requires no great stretch of the imagination to conceive of rays of light also as such. And the word "suparnas" in the above two verses most probably means sun's rays. These "suparnas" cannot be identified with the "two suparnas" (dvâ suparnâ) of verse 20, because verse 22 says that these suparnas eat the sweetness on the tree, whereas one of the suparnas of verse 20 "eating not regardeth only." We have also the authority of Sayana for making this interpretation. Sayana, however, says that "the Universe's mighty Keeper" in verse 21 and "the Father" in verse 22 refer to the sun, but in this we differ from him. In giving an easy and natural interpretation to the verses, the Keeper of the Universe and the Father must be differentiated from the sun and the moon, the two suparnas sitting on the tree of the universe. Besides this, the hymn itself supplies the true solution of the question. Verse 33 says, "Dyaus is my Father, my begetter" (Dyaurme pitâ janitâ), and this Dyaus, the sky or the firmament is the Keeper of the Universe in verse 21 and the Father in verse 22—he is the Dyaus-pitar, Jupiter, who governs and protects the universe and brings forth the heavenly luminaries with the sun as their chief.

VAK.

We have seen that in verse 20 we have men-

tion of "suparnas" as dual and in verses 21 and 22 as plural. Now, in order to find out the relation between these verses and verses 23, 24 and 25, speaking of the metres Gâyatri, Trishtup and Jagati, we must turn to verses 45 and 46 in which the nature of Vāk or speech is related and "suparnah" is used as singular and called by the name of Garutman. These verses are :—

"45. Four are the measured grades of Vāk (speech) ; the Brahmanas that are wise know them.

Three deposited in secret move not ; the fourth grade of Vāk (speech) men speak."

46. "They speak of Indra, Mitra, Varuna, Agni ; then he is the heavenly *suparna* Garutman.

That which is, and is one, the poets call in various ways ; they speak of Agni, Yama, Matarisvan." *

The Satapatha Brahmana explains the first of these verses as follows :—

In dividing the Aindra-Vayava Graha (cup) of Soma between themselves a dispute arose between the two gods as regards their respective shares in it. Indra said, 'One half of this cup is

* 45. Chatvâri vâkparimitâ padâni tâni bidur brâhmanâ ye manîshinah. Guhâtrîni nihitâ nengayanti turiyam vâcho manushyâ vadanti.

46. Indram mitram varunam agnimâhuratho divyah sa suparno garutmân.

Ekam sadviprâ vahudhâ vadantyagnim yamam mâtarisvânam âhuh.

mine.' 'Only one-fourth is thine', said Vayu. 'One half is mine,' said Indra.—'Only one-fourth is thine,' said Vayu.

They went to Prajapati for his decision. Prajapati divided the cup (of Soma) into two parts and said, 'This half is Vayu's'. Then he divided the (other) half into two parts and said, 'This is Vayu's. This is thine.' Then he assigned to Indra a fourth for his share—one-fourth is the same as a quarter: henceforward that cup belonged, one-fourth of it, to Indra.

Indra said, 'If they have assigned to me a fourth part each time for my share, then speech shall speak intelligibly only one-fourth part.' Hence only that fourth part of speech is intelligible which men speak; that fourth part of speech which beasts speak is unintelligible; and that fourth part of speech which birds speak is unintelligible; and that fourth part of speech which the small vermin here speak is unintelligible.

Wherefore it has been thus spoken by the Rishi:—'Four are the measured grades of speech; the Brahmanas that are wise know them. Three, deposited in secret, move not; the fourth part men speak'." (Sat. Br.—IV, I, 3, 13, 14, 16, 17.)

As for attributing Vāk or speech to animals, the Brahmana has the authority of R. V., VIII, 89, 11, which says, "The deities generated Vāk,

the goddess, and animals of every figure speak her" (Devim Vâcham ajanayanta devâh tâm visvarupâh pasavah vadanti). Here and in similar places the word vâk is used in its widest sense, in the sense of any form of articulated sound, intelligible or unintelligible. But in the Veda the word is also used in a much restricted sense, in the sense of the language or speech which contains or is capable of containing the highest knowledge. R. V., X, 71 says—

"When men, Brihaspati, giving names to objects, sent out Vâk's first and earliest utterances,

All that was excellent and spotless, treasured within them, was disclosed through their affection.

2. Where like men cleansing corn-flour in a cribble, the wise in spirit have created language,

Friends see and recognise the marks of friendship: their speech retains the blessed sign imprinted.

3. With sacrifice the trace of Vâk they followed, and found her harbouring within the rishis.

They brought her, dealt her forth in many places: seven singers make her tones resound in concert.

4. One man hath never seen Vâk, and yet he seeth: one man hath hearing but hath never heard her.

But to another man hath she shown her beauty as a fond well-dressed woman to her husband.

5. One man they call a laggard, dull in friendship : they never urge him on to deeds of valour.

He wanders on in profitless illusion : the Voice he heard yields neither fruit nor blossom."

This Vâk which was found harbouring within rishis only cannot be identified with the Vâk which all animals speak. She embodies the highest and purest knowledge attainable by man and she expresses herself through seven singers, that is, the seven metres. She is found in the course of sacrifice, that is, she constitutes the sacrificial lore. And the hymn concludes by saying that she is divided principally into four compartments of knowledge—"One plies his constant task reciting *riks*. One sings the Gâyatra in Sakvari measures. One more, the Brahman, tells the lore of being (Jâtavidyâ), and one lays down the rules of sacrificing" (X, 71, 11), It was this Vâk which the Brahmins deified as wielding the highest power and performing the most sacred functions of life. It was this Vâk, the noblest portion of speech, which is said to have been lost during Vritra's supremacy and the stagnation of celestial waters, expressing the idea that darkness stifles knowledge and puts

a stop to most sacrificial ceremonies. R. V., VIII, 89 says :—

“10. When uttering words which no one comprehended, Vâk, Queen of Gods, the Gladdener, was seated,

The heaven's four regions drew forth drink and vigour; now whither hath her noblest portion vanished ?

11. The deities generated Vâk, the Goddess, and animals of every figure speak her.

May she, the Gladdener, yielding food and vigour, the milch-cow Vâk, approach us meetly lauded.

12. Step forth with wider stride, comrade Vishnu; make room, Dyaus, for the leaping of the lightning.

Let us slay Vritra, let us free the rivers : let them flow loosed at the command of Indra.”

With the re-appearance of the noblest portion of Vâk, Vritra is slain and the waters are set free. So says the rishi in the same hymn :—

“7. Now run ye forth your several ways : he is not here who kept you back.

For hath not Indra sunk his bolt deep down in Vritra's vital part ?

8. On-rushing with the speed of thought within the iron fort he pressed :

The Falcon (suparna) went to heaven and brought the Soma to the Thunderer.”

These two verses contain two separate statements. Verse 7 says that Indra, by killing Vritra, established the flow of celestial waters, and verse 8 says that the *syena* surnamed *suparna* had secured Soma for Indra. Taken together the verses mean that after the Falcon had brought Soma to Indra, the thunderer slew Vritra and made the waters flow. Now, in verses 11 and 12 the release of waters is also attributed to the re-appearance of Vâk. Consequently, when the uranographical origin of the Falcon was forgotten it was quite natural for commentators to identify the Falcon with Vâk in her higher form of Vedic lore. Again, as the flow of waters signifies the presence of the sun above the horizon, she is conceived as accompanying gods of light. In R. V., X, 125 we read :—

“I (Vâk) travel with the Rudras and the Vasus, with the Adityas and All-Gods I wander.

I hold aloft both Varuna and Mitra, Indra and Agni, and the Pair of Asvins.

2. I cherish and sustain high-swelling Soma, and Tvashtar I support, Pushan and Bhaga.

I load with wealth the zealous sacrificer who pours the juice and offers his oblation.”

VÂK AND SUPARNA.

The connection of Vâk in the form of Vedic lore or metres with the appearance of the sun and with the Soma sacrifice is exquisitely set

forth in R. V., X, 114, with the characteristic poetic flourish of the Vedic rishi and a touch of high metaphysical perception. Filled with ecstasy at the sight of the morning sun, the bard says :—

“3. The Youthful One (yuvati), well-shaped, with four locks braided, brightened with oil, puts on the ordinances.

Two suparnas of mighty power are seated near her, there where the Deities receive their portion.

4. One suparna, as he passed into the sea of air, looked round and viewed this universal world.

With simple heart I have beheld him from anear : his mother kisses him and he returns her kiss.

5. This suparna though only one in nature, wise singers shape, with songs, in many figures.

While they at sacrifices fix the metres, they measure out twelve chalices of Soma.”

The Youthful One (yuvati) is *dyu* or heaven. [Compare, “Partners (Heaven and Earth) though parted with far-distant limits, in one firm place, both stand for ever watchful, And being young (Yuvati) for evermore, as sisters speak to each other names that are united.”] The four locks are the four quarters of the firmament, and the two suparnas are the sun and the moon. One suparna is kissed by his mother, Dawn, and

returns the kiss. And though he is only one, poets call him by different names. The metres are used at sacrifices during his presence and cups of Soma are then measured out. Great is the power of these metres, for they constitute the life and soul of the allegorical soma sacrifice. "What sage," exclaims the rishi, "hath learned the metres' application? Who hath gained Vâk, the spirit's aim and object?"

Now we have come to a position to be able to see the connection between verses 45 and 46 of the 164th hymn of Mandala I quoted before. Verse 45 speaks of the divisions of Vâk and the part of her which man speaks. Verse 46 says, "They speak of Indra, Mitra, Varuna, Agni; then he is the heavenly suparna Garutman. That which is, and is one, the poets call in various ways; they speak of Agni, Yama, Matarisvan." Apparently there is no connection between these two verses. But studied in the light of what we have shown above, a well-founded connection may be discovered between them. Verse 46 is exactly similar to the first hemistich of X, 114, 5, explained above, with this difference that the suparna in the former is called by the distinctive appellation of Garutman from which the later Garurha is derived. Now, in considering X, 114, 5 we have seen what relation exists between Vâk and the suparna in it. The same relation exists between Vâk in verse 45

and the suparna Garutman in verse 46 under consideration.

The same relation, again, exists between verses 20, 21 and 22 and verses 23, 24 and 25 of R. V, I, 164. The word "suparna" has been used in verses 20, 21 and 22, first, in the sense of the sun and the moon, in a dual form, and, secondly, in the sense of solar rays in a plural form. The word is also used in a singular form in verse 46 of the same hymn meaning the sun, and the same meaning of suparna holds good in X, 114, 5. In a singular form the word is also used for the soma-bearing Syena or Falcon, as, for instance, in VIII, 89, 8. Again, we have seen how Vāk or speech has been deified in the Veda as containing the highest sacrificial and metaphysical knowledge of the rishis. This knowledge, moreover, is contained in metres which were used at sacrifices, and these sacrifices were supposed to be as essential for bringing about the long continuous day as the conquest of soma by the Syena or Falcon called Suparna. The verses 20, 21 and 22 which give an account of the long continuous day, of the sun and the moon, knit with bonds of friendship, sitting incessantly on the tree of the world near Dyaus, the Keeper of the Universe, or Dyū (the Youthful Heaven—X, 114, 3.), are, consequently, followed by an eulogy on the metres which were supposed to have

been, in one sense, instrumental in bringing about this superb and much-longed-for physical condition. And the Gâyatri, Trishtup and Jagati being the most important of Vedic metres and the metres in which by far the largest part of the Soma Pavamana hymns are composed, this eulogy is given to them in particular. Then, again, we have seen how Vâk is conceived as being associated with the bright gods of heaven, "with the Rudras and the Vasus, with the Adityas and All-Gods" (X,125,1). Now, as Gâyatri is the principal part of Vâk, and Indra and Agni are the leaders of gods in heaven and on earth, the latter are particularly associated with that metre. So it is said, "Accept this eulogy of mine composed in the Gâyatri metre: Indra and Agni, Heroes, come" (R. V., VIII, 38,6). And as Indra as the chief of sun-gods and the source of the heat-energy of the world is represented by Agni on the earth, Gâyatri is said to be the peculiar metre of Agni. At creation "Gâyatri," says the Vedic rishi, "was united with Agni" (X, 130, 4). Our object in pointing out all this to the reader is to show how, if the clue to the real meaning of the conquest of the heavenly Soma by the Syena or Eagle is lost, the heavenly bird can be identified first with Vâk, then with the metres, then with the gods, then with the sun-god or fire-god and lastly with the Gâyatri.

THE NATURE OF THE SACRIFICE.

Let us now look at the subject a little more closely. The Vedic conception of sacrifice is three-fold—spiritual, celestial, and artificial or symbolical—and the ingredients and ramifications of the three are considered to be similar whether within the human body or in the heavens or on the earth. Creation is conceived as a great sacrifice (see Purushasukta, R., V., X, 90) or rather the primeval original sacrifice in the image of which the other sacrifices have been formed (see R. V., X, 130); and as this creation is typified in the human body in which all the gods are represented and Vâk resides as the word of God and the symphony of the divine machinery within, the best, truest and purest form of sacrifice is considered to be going on within man himself and his spiritual advancement is considered proportionate to his knowledge of this sacrifice. The spiritual Hindus have never lost sight of this spiritual sacrifice, and have always tried and still try to gain a knowledge of it by conquering and subduing the evil genii within, which darken their inner vision, and casting off the Avidya or nescience which covers them. This is their *âtma-vidya* or science of the self. But we are going astray from our immediate purpose. The idea of this spiritual sacrifice was, of course, first of

all, drawn from the celestial sacrifice, the great sacrifice that is carried on in the universe by the nature-gods headed by their solar chief and is regulated by God's Law or *rita*. Now, although the main principle of this heavenly sacrifice remains constant, its nature varies according to circumstances. The sacrifice is in the whole annual, but its elements vary according to the varying seasons of the year and the changing conditions of light and darkness. The object of the sacrifice is the destruction of darkness and the evils appertaining thereto.

THE LONG DAY SACRIFICE.

To the Vedic rishis inhabiting the arctic region the principal element of the annual heavenly sacrifice was, therefore, that portion of it which represented the long continuous day, or the Brihaddiva (brihat—big, diva—day). Like Dirghatama or Long Darkness (dirgha—long, tama—darkness), Brihaddiva is conceived as a rishi. But while Dirghatama is blind and forsaken, Brihaddiva is the foremost of light-winners and lord of the region of light; for, in R. V., X, 120, 8 it is said:—

“Brihaddiva, the foremost of light-winners, repeats these holy prayers, this strength to Indra.

He rules the great self-luminous fold of cattle, and all the doors of light hath he thrown open.”

Brihaddiva is the rishi and Indra the god of the hymn in which this verse is contained.* Of the heavenly sacrifice representing the long continuous day, the heavenly rishi or performer is the Long Day personified who throws all the doors of light open. The object sacrificed is the Soma or moon caught in the clutches of the heavenly bird Syena, the constellation Aquila, and the sacrifice is enjoyed by all gods (Visvedevah) who "with their might have stayed Heaven, Earth and Prithivi, the Lord of Light, the firmament, the lustrous spheres" (R. V., X, 65, 4). The artificial sacrifice which men perform is mainly a symbolical representation of this heavenly sacrifice.

THE ANGIRASES.

The performers of the terrestrial sacrifice are the Angirases, the Navagva and Dasagva priests. But in the Veda they have been endowed with also a celestial aspect. R. V., X, 62, 6 says:—

"Distinguished by their varied forms they (the Angirases) sprang from Agni, from the sky.

Navagva and Dasagva, noblest Angiras, he giveth bounty with the Gods."

* In one of the Visvedeva hymns of the Rig Veda the long day is actually personified and invoked as a goddess under the name of Brihaddivā (X, 64, 10).

The dual nature of the priesthood of the Angirases is illustrated by a nice story in the Satapatha Brahmana which runs as follows :—

“In the beginning there were two kinds of beings here, the Adityas and the Angirases. The Angirases then were the first to prepare a sacrifice, and having prepared the sacrifice they said to Agni, ‘Announce thou to the Adityas this our to-morrow’s soma-feast, saying, “Minister ye to this sacrifice of ours.”’ The Adityas spake (to one another), ‘Contrive ye how the Angirases shall minister unto us, and not we unto the Angirases.’ They said, ‘Verily by nothing but sacrifice is there a way out of this; let us undertake another Soma-feast.’ They brought together (the materials for) sacrifice, and having made ready the sacrifice, they said, ‘Agni, thou hast announced to us a soma-sacrifice for to-morrow: but we announce to thee and the Angirases a soma-feast for to-day: it is for us that thou art (to officiate) as Hotri.’ They sent back some other (messenger) to the Angirases; but the Angirases going after Agni, were exceedingly angry with him. * * * * * Agni spake, ‘The blameless chose me &c. &c. &c. &c. &c.’ The Angirases then officiated for the Adityas in the sacrifice with Soma bought (*Kri*) on the same day (*Sadyas*); whence this Sadyahkri. They brought Vâk to them for their sacrificial fee. They accepted her not,

saying, 'We shall be losers if we accept her.' And so the performance of that sacrifice was not discharged (completed) as it was one requiring a sacrificial fee. Thereupon they brought Surya (the sun) to them and they accepted him. Wherefore the Angirases say 'Verily we are fit for the sacrificial office, we are worthy to receive the Dakshinas; yea, even he that burns yonder has been received by us' * * * *

Now Vâk was angry with them: 'In what respect, forsooth, is that one better than I—wherefore is it that they should have accepted him and not me?' So saying she went away from them. Having become a lioness she went on seizing upon (everything) between those two parties, the Gods and the Asuras. The gods called her to them and so did the Asuras.

Agni was the messenger of the gods and the Saharakshasas for the Asura-Rakshasas. Being willing to go over to the gods, she said, what would be mine if I were to come over to you?'

'The sacrifice shall reach thee even before (it reaches) Agni.' She then said to the gods, 'Whatsoever blessing ye will invoke through me, all that shall be accomplished unto you.' So she went over to the gods."

The above story tells us, first of all, that the heavenly sacrifice preceded the artificial sacrifice, and next, that the Angirases, the Hotri priests of the Rig Veda, had a two-fold

personality, celestial and terrestrial, and the acquisition that they made in their celestial function was the sun. All this is exactly to our point. The story, moreover, gives a mythical explanation of the importance of Vâk and the high position which she has been assigned in all artificial sacrifices.

THE ARTICLE SACRIFICED.

The article of sacrifice is the heavenly Soma or the moon in the heavenly sacrifice, and the terrestrial Soma, a plant, in the artificial sacrifice. So the Veda says, "Let heavenly Soma gladden thee, O Indra, let that effused among mankind delight thee" (X, 116, 3). The sacrifice attains its climax and greatest importance during the long continuous day when,

"Indra and Agni, Hero-lords when Vritra fell, dwelling together, speeding emulously on,

And Soma blent with oil, putting his greatness forth, have with their power filled full the mighty firmament" (X, 65, 2),

that is to say, when Indra, the fire of the firmament manifesting itself during day-time, and Agni, the fire of the earth and only source of light and heat during night, pervade the universe at one and the same time. It is when "The streams unceasing flow to Indra, slayer of Ahi, Savitar, God, Law's fulfiller, *day after day goes on the*

sheen of waters," and in an ecstasy of joy the bard asks, "What time hath passed since they were first set flowing ?" (II, 30, 1).

HOW OBTAINED.

The agent which secured the Soma, celestial or terrestrial, for sacrifice during this long day was supposed to be the heavenly eagle or the constellation Aquila in the case of the celestial sacrifice, and Vâk or the sacred metres in the case of its artificial terrestrial counterpart. The celestial eagle securing the celestial Soma at the beginning of the long day was a stern reality with the Vedic rishis residing in arctic regions about 6000 years ago, for the moon actually lay in the talons of the constellation Aquila at that time of their year. It was no mere figure of speech, no mere symbolic effusion of the poet when he said, "When the *Syena* comes in body to the soma, armed with his iron claws, he (Indra) slays the Dasyus" (X, 99, 8), or "Which fair, unrobbed, the *Syena* brought thee in his feet, the red-hued dwelling of the juice" (X, 144, 5). The soma-conquering *syena* was such a reality with the Vedic bards that in one hymn they actually prayed that their deity, a bird called *Kapinjala*, might not be injured by it, saying, "Let not the *Syena*, let not the *suparna*, kill thee: let not the arrow-bearing Archer reach thee" (II, 42, 2). The archer *Krisanu* also was

no mere fiction with them—he was the constellation Sagittarius always ready to shoot his arrow against anybody trying to injure the celestial Soma at the beginning of the long day and thus designated a guardian of the god.

THE POWER OF METRES.

The Soma plant for the terrestrial sacrifice is procured by the sacrificer while reciting sacred verses. The sacrificer is, however, supposed to be a mere tool in the work, the real gatherer of the Soma being the metres of those verses. We have pointed out before how Vâk, with the metres constituting her body, is deified in the Rig Veda and credited with the highest powers and functions in connection with the sacrifice and the movements of the celestial luminaries, the sun and the moon in particular. In the terrestrial sacrifice Vâk is everything. Every part of it is supposed to be performed by the metres with the instrumentality of the Hotri priests. “The power and significance of the Hotri priests at a sacrifice consist,” says Prof. Haug in the Introduction to his edition of the Aitareya Brahmana, “in their being the masters of the sacred word, which is frequently personified by Vâk, i. e., Speech, who is identified with Sarasvati, the Goddess of learning in the later Hindu Pantheon. Speech has, according to the opinion of the earliest Hindu

divines, the power of vivifying and killing. The sacred words pronounced by the Hotar effect, by dint of the innate power of Vâk, the spiritual birth of the sacrificer, form his body, raise him up in heaven, connect him with the prototype of those things which he wishes to obtain (such as children, cattle, &c.) and make him attain to his full life-term, which is a hundred years; but they are at the same time a weapon by means of which the sacrificer's enemies, or he himself (if the Hotar have any evil design against him) can be killed, and all evil consequences of sin be destroyed. The power and effect of speech as regards the obtaining of any particular thing wished for, mainly lies in the form in which it is uttered. Thence the great importance of the metres and the choice of words and terms. Each metre is the invisible master of something obtainable in this world; it is as it were its exponent and ideal. This great significance of the metrical speech is derived from the number of syllables of which it consists; for each thing has (just as in the Pythagorean system) a certain numerical proportion. The Gâyatri metre, which consists of three times eight syllables, is the most sacred and is the proper metre for Agni, the god of fire and chaplain of the gods. It expresses the idea of Brahma; therefore, the sacrificer must use it when he wishes for anything closely connected

with the Brahma, such as acquirement of sacred knowledge, and the thorough understanding of all problems of theology. The Trishtup, which consists of four times eleven syllables, expresses the idea of strength and royal power; thence it is the proper metre by which Indra, the king of the gods, is to be invoked. Any one wishing to obtain strength and royal power, principally a Kshatriya, must use it. A variety of it, the Ushnih metre of twenty-eight syllables, is to be employed by a sacrificer who aspires for longevity, for twenty-eight is the symbol of life. The Jagati, a metre of forty-eight syllables, expresses the idea of cattle. Any one who wishes for wealth in cattle must use it. The Anushtup metre of thirty-two syllables is the symbol of the celestial world; thence a candidate for a place in heaven has to use it." We have also shown before how in the Rig Veda Vâk is associated with the slaying of Vritra, the release of waters, the winning of light and eventually the conquest of Soma by the Syena.

VAK IDENTIFIED WITH SYENA.

Now, the idea of transforming the metres into eagles as we find it elaborated in the Brahmanas surely originated in a mistake or misconception. It was surely formed when the uranographic identity of the Syena was forgotten and Vedic scholars were left to explain the conquest

of Soma by the Syena as best as they could. And the best way that they found of explaining it was to identify the Syena with Vâk, both being closely associated in the Rig Vedic hymns with the acquisition of Soma, Syena and Vâk with that of the celestial Soma and Vâk with that of the terrestrial Soma. They evolved the theory that as on earth so in the heavens Soma was secured by Vâk. This theory hardly caused any loss to their symbolical sacrifice, for the heavenly phenomenon of the conquest of Soma by the Syena had no place in the heavenly sacrifice relative to their new home in a southern latitude. Indeed, the entire long day sacrifice lost its import with the later Aryans settled in the Punjab and the neighbouring countries. It was consequently moulded and fashioned so as conform to an ordinary daily sacrifice with its morning, mid-day and evening libations.

The Rig Veda says, "From heaven, from out the firmament, hath Pavamana been effused upon the summit of the earth" (IX, 63, 27), and, again, "Sapient One! the Falcon, strong of wing, unwearied, brought thee down, Lord over riches, from the sky" (IX, 48, 3). Vâk is, therefore, sent to bring her to the sacrifice, to the gods in heaven as well as in the terrestrial sacrifice. The Satapatha Brahmana thus says (III, 2, 4, 10-16-17-21):—"As the Gods then sent her (Vâk) to Soma, so does he (the sacrificer) now send her to

Soma; and the cow for which the Soma is bought being in reality Vâk, it is her he gratifies by this offering, thinking, 'with her, when gratified, I shall buy the Soma.' * * *

* * * * * Having gone up to her, he (the Adhvaryu) salutes her with the text (Vaj. S. IV, 19), 'Thou art thought, thou art the mind,'—for speech, doubtless, speaks in accordance with thought, with the mind;—'Thou art intelligence, thou art the Dakshina,'—for it is by means of their respective intelligence that people seek to make their living &c. &c. * *

* * * * * 'Be thou for us successful (in going) forward and successful (in coming) back.' * * *

* * * * * Even as at that time, the gods sent her to Soma, and she returned to them together with Soma, so does he (the sacrificer) now send her to Soma, and she returns to him together with Soma." The symbolical character of the terrestrial sacrifice is plainly indicated in the above. Now, in the sacrifice Vâk is represented by the metres. It is the metres, therefore, which are actually utilised in the sacrifice, and for this purpose they are strengthened by the *Pratar-anuvaka* or morning-prayer which has to be recited between midnight and sunrise, the sacrifice commencing with sunrise. "Sitting near (Soma) the Hotri is about to recite the

morning-prayer. Then, while putting a kindling stick (on the fire), he, the Adhvaryu, says, 'Recite to the Gods of the early-morning.' Now, the early-morning gods are the metres, as the after-offerings are the metres. And when he puts on a kindling stick it is the metres he thereby kindles. And when the Hotri recites the morning-prayer, he thereby again strengthens the metres, makes them to be of unimpaired vigour; for the metres had their vigour impaired by the gods, since it was through the metres that gods reached the heavenly worlds; they neither sing praises (chants) nor recite (shastras) here. Hereby he again strengthens the metres and makes them of unimpaired vigour; and by means of them thus unimpaired in vigour, they perform the sacrifice; this is why the Hotri recites the morning-prayer" (Sat. Br. III, 9, 3, 8-9), The Rig Veda says, "I (Vâk) travel with the Rudras and the Vasus, with the Adityas and All-Gods I wander. I hold aloft both Varuna and Mitra, Indra and Agni, and the pair of Asvins," (X, 125, 1, see p 156). It is evidently on the authority of this and similar verses that the Brahmana says that "the morning-gods are the metres, as the after-offerings are the metres," and that "it was through the metres that the gods reached the heavenly worlds," the morning and evening gods being none else than the sun-gods mentioned in the above verse.

The metres invigorated by the morning prayer are the Gâyatri, Ansuhtup, Trishtup, Brihati Ushnih, Jagati and Pankti. They are the seven sacred metres of the Veda. Their use at dawn is beautifully stated by the bard in R. V., X, 32, 4, which says, "This beauteous place of meeting (the east) have I looked upon, where like milchcows, the kine (rays of light) order the marriage train (of Indra); Where the herd's (kine's) Mother (Dawn) counts as first and best of all, and round her are the seven-toned (using the seven metres) people of the choir." The notes within brackets are mine, and fully explain the verse. Some difficulty has, however, been felt by commentators in explaining it. According to Sayana 'herd' refers to the company of sacrificers and priests, its mother being *Stuti* or praise, and Griffith says that "the Herd's Mother is more probably Prisni, the mother of the Maruts." But if we read the verse along with the 51st hymn of the IVth Mandala, we think that the whole difficulty is removed. That hymn contains a superb and unmistakable description of the successive dawns occurring at the end of the long continuous night, of dawns that spring "in the region eastward from forth the darkness" (Verse 1). And in its 4th verse it is said, "O Goddesses, is this your car, I ask you, ancient this day, or is it new, ye Mornings, Wherewith, rich Dawns, ye seek with wealth Navagva, Dasagva Angira, the seven-

mouthed singer?" The seven mouths of the singer are the seven tones or metres referred to in the verse in question.

Of the seven metres three are, according to the Brahmanas, sent to fetch the Soma. They are the Gâyatri, Trishtup and Jagati, which are the most important of the seven and in which the bulk of the Soma Pavamava hymns are composed. They are, moreover, the presiding metres of the three principal libations offered during morning, mid-day and evening. "In the first place," says the Satapatha Brahmana, "they pick the King (Soma). A pitcher of water is placed close to him, and a Brahmin sits beside him. Thither they (the priest and sacrificer) now proceed eastward. While they go there, he (the Adhvaryu) makes (the sacrificer) say the text (Vaj. S. IV, 24), 'Say thou for me, unto Soma, "This is thy Gâyatri part (bhâga)." Say thou, for me, unto Soma, "This is thy Trishtup part." Say thou, for me, unto Soma, "This is thy Jagati part." Say thou, for me, unto Soma, "Obtain thou for me the supreme sovereignty of the names of the metres. Now when he (King Soma) is bought, he is bought for one (destination)—for the sovereignty of the metres, for the Supreme sovereignty of the metres; and when they press him, they slay him : hereby now he says to him, 'It is for the sovereignty of the metres that I buy thee, not for slaying thee. Hav-

ing gone there, he sits down (behind the Soma) with his face towards the east" (III, 3, 2, 5-6). "The moon," it is said in the Purushasukta (R. V., X, 90), "was gendered from the Purush's mind." If the Purushasukta is a later production, the earlier hymns also contain ample reference to Soma conceived as sovereign of speech or metres, as, for instance, it is called "Father of holy hymns" in R. V., IX, 96, 5 and "Lord of Speech infallible" in R. V., IX, 26, 4. Herein lies the justification of the sacrificer for saying that the soma plant is bought and pressed for the sovereignty of the metres.

Now, as in the Rig-Veda soma is said to have been fetched by the Syena *alias* suparna, the Brahmanas state that the metres transferred themselves into suparnas or birds while going to fetch it. This theory arose, as we have said before, out of the fact that Vedic scholars had lost the uranographic identity of the Syena and had consequently, no other means than to identify it with Vâk as the most plausible way of explaining the legend.

DIKSHA.

Of the three metres which went to fetch the Soma the Gâyatri was the most powerful owing, firstly, to the fact of its being the most sacred of all metres, secondly, to that of its being the presiding metre of the morning libation, and,

thirdly, to its being the metre in which the major part of the Soma Pavamana hymns were composed. The honour of actually bringing down the Soma is consequently given to the Gâyatri. The two other metres, the Trishtup and Jagati, which preside over the mid-day and evening libations and come next to the Gâyatri in the composition of the Soma Pavamana hymns, failed to capture the Soma, but were successful in securing the three essentials of a sacrifice, Diksha (Consecration), Tapas (Penance) and Dakshina (Guerdon or sacrificial rewards). And Jagati, the lesser of the two on account of its being the presiding metre of the evening libation, was the least successful and lost three of its four syllables on the way. But it brought the first essentials of a sacrifice, viz, Consecration and Penance. "With Jagati," it is said in R. V., I, 164, 25, "the flood in heaven he (Brahmâ, according to Sayana) established, and saw the sun in the Rathantara Saman." "The flood in heaven" is dawn. Jagati is, consequently, conceived in this verse as the earliest invoker of sunlight. It is, therefore, according to the Brahmanas, the earliest also to go after the Soma. The Rathantara Saman is II,i,i, 11 of the Sama Veda and is the same as verses 22 and 23 of R. V., VII, 32. These verses address Indra thus:—"Like kine un-milked we call aloud, Hero, to thee and sing thy praise, Looker

on this heavenly light, Lord of this moving world, Lord, Indra, of what moveth not. None other like to thee, of earth or of the heavens, hath been or ever will be born. Desiring horses, Indra Maghavan ! and kine, as men of might we call on thee." As the Jagati is connected with this Saman in which horses and cattle are prayed for, the Brahmana (Aitareya, see page 142) says, "Cattle belong to Jagati. Jagati took them." And one who has cattle or is rich is capable of inaugurating a sacrifice, The Brahmana, therefore, further says, "He who has cattle is possessed of Diksha and possessed of Tapas." Diksha is indispensable for one who would commence a sacrifice. It prepares and purifies him for an intercourse with gods. So the Satapatha Brahmana says, "All formulas of the consecration (Dikshâ) are *Audgrabhana* (elevatory), since he who is consecrated elevates himself (ud-grabh) from this world to the world of the gods. He elevates himself by means of these formulas, and, therefore, they say that all formulas of the consecration are 'audgrabhana' " (Sat. Br. III, 1, 4, 1), and, again, "The sacrificer anoints himself—it is for speech that he anoints himself, since he anoints himself for the sacrifice, and the sacrifice is speech. Dhikshita (the anointed) doubtless is the same as dikshita (the consecrated)" (Sat. Br., III, 2, 2, 30). So far as the human sacrificer is con-

cerned, his relation with the sacrifice consists primarily in his capacity for reciting sacred verses and this capacity he does not earn so long as he is not consecrated. The Jagati, the first metre which flies up to heaven to bring down the Soma, comes down, therefore, with the first essential of the sacrifice, namely, Diksha.

TAPAS.

Next to Diksha, and much more important than it from the spiritual point of view, comes Tapas or Penance (religious fervour). In R. V., X, 154,2 it is said that Soma flows for those who are "invincible through Tapas, those whom Tapas hath advanced to heaven, who showed great Tapas in their lives." Such is the power of Tapas that in verse 5 of the same hymn sages and rishis, who possess Tapas, are said to protect the sun. In the artificial Soma sacrifice Tapas consists of the *Upasads* or homages which form a part of a principal section of the sacrifice, the Jyotish-toma. "Agni," says R. V., II, 6, 1, "accept fire-wood, accept this upasad." At the end of the Brahmana on upasads, the Satapatha Brahmana says, "Verily the world is conquered by austere devotion," (III, 4,4,27). In the heavenly sacrifice also Tapas is supposed to be indispensable. Indra won the heaven or heavenly light by Tapas. The rishi says, "This pleasant meath, O Indra, is effused for thee: thou art the ruling lord of

beaker and of juice. Bestow upon us wealth with many hero-sons: thou, having glowed with Tapas, wonnest heavenly light." (R. V., X, 167, 1). Finally, Tapas is conceived as the root-cause of creation, the great primeval sacrifice. We are unable to resist the temptation of quoting the hymn (R. V., X, 190) in which the rishi formulates his theory on this subject:—

"From Tapas kindled to its height Eternal Law (Rita) and Truth (Satya) were born:

Thence was the Night produced, and thence the billowy flood of sea arose.

2. From that same billowy flood of sea, the Year was afterwards produced,

Ordainer of the days and nights, Lord over all who close the eye.

3. Dhâtar, the great Creator, then formed in due order Sun and Moon.

He formed in order Heaven and Earth, the regions of the air and light."

The celestial Soma "flows between the earth and heaven" (R. V., IX, 86, 13), and, lighted by the sun, the heaven and earth are conceived as golden, as it is said in R. V., III, 44, 3, "The heaven with streams of golden hue, earth with her tints of green and gold—The Golden Pair yield Indra plenteous nourishment: between them moves the golden one (sun)." Again, R. V., IX, 70, 2 says, "Longing for

lovely Amrita, by his wisdom he (Soma Pavamana) divided, each apart from other, earth and heaven." Now, the Satapatha Brahmana theorises that the earth and heaven between which the celestial Soma moves represent the Consecration and Penance respectively of the heavenly sacrifice, most probably because one who has been consecrated for a sacrifice ultimately gains worldly riches and who does Penance attains heaven. The Brahmana, moreover, fancifully utilises the fact that at every twinkling of the eye the earth and heaven seem closed together. It says, "He (the Soma) was enclosed between two golden cups; sharp-edged they closed together at every twinkling of the eye; and these two, forsooth, were Consecration and Penance. Those Gandharva Soma-wardens watched over him: they are these hearths, these fire-priests. She (Suparnî) tore off one of the two cups and gave it to the gods—this was Consecration: therewith the gods consecrated themselves. She then tore off the second cup, and gave it to the gods—this was Penance: therewith the gods underwent Penance, to wit the upasads, for the upasads are Penance" (III, 6, 2, 9-10-11). Such are Diksha and Tapas which Jagati secured from heaven and, although it failed to fetch the Soma, the service rendered by it to the sacrificer was by no means inconsiderable.

DAKSHINA.

After Jagati, flew up Trishtup to fetch the Soma, and, although it too failed in the main purpose, it secured the third and final essential of a sacrifice, namely, Dakshina or sacrificial guerdon. No sacrifice can be complete without Dakshina, not even a celestial one as we have seen in the case of the sacrifice performed by the Angirases for the gods (see page 165). The rishis deified Dakshina and a whole hymn composed in the Trishtup metre (X, 107) is dedicated to her in the Rig Veda. Indeed Dakshina is indispensable for the preservation of the sacrifice, for how can sacrificial priests live without it? Verse 7 of the Dakshina-hymn truly says, "Dakshina gives food which is our life and spirit. He who is wise takes Dakshina for his armour." It is by liberality in the matter of Dakshina alone that learned men versed in the sacrificial lore can be maintained and the sacrifice kept alive. The liberal sacrificer is, therefore, said to earn great religious merit by the Dakshina he bestows on priests. "The liberal die not, never are they ruined: the liberal suffer neither harm nor trouble. The light of heaven, the universe about us,—all this doth Dakshina give them"—thus says the Dakshina-hymn. Like every other ingredient of the sacrifice, Dakshina too has a

two-fold character, celestial and terrestrial. We have seen that in the celestial sacrifice which the Angirases performed for the gods they received, according to the Satapatha Brahmana, the sun for their Dakshina. In the Rig Veda the Dawn is conceived as the Dakshina of the celestial sacrifice. Just as the terrestrial Dakshina removes the gloom of poverty from the household, so the celestial Dakshina removes the gloom of night from the world. The Dakshina-hymn, therefore, begins by setting forth this common element in both the forms of Dakshina:—"These men's great bounty hath been manifested, and the whole world of life set free from darkness. Great light hath come, vouchsafed us by the Fathers: apparent is the spacious path of Dakshina." The heavenly priest is Agni and "he is chosen with Dakshinas" (VIII, 39, 5). These Dakshinas are the Dawns which come at the close of the period of darkness during which Agni is the presiding deity. In one of the Dawn-hymns of the Rig Veda, viz, I, 123, the dawn is actually called by the name of Dakshina. It is a hymn lauding the dawn or many dawns of the long continuous night. Its 1st verse says, "Dakshina's broad chariot hath been harnessed, this car the gods immortal have ascended. Fain to bring light to homes of men the noble and active (goddess) hath emerged from darkness." Sayana rightly considers

Dakshina here to be an epithet of dawn. Some of the Western commentators are, however, unwilling to accept this interpretation. M. Bergaigne, quoted by Professor Griffith, for instance, says: "The interpretation of the word *Dakshina* in the sense of sacrificial salary, in the first verse of our hymn as also in the fifth, is not only *possible* but the *only possible* one, for the reason that this word is used in no other sense in the Rig Veda than that of 'salary, recompense,' given either by the earthly *maghavan*, that is to say, by those who pay the priest for performing the sacrifice, or by the heavenly *maghavan*, Indra, who in his turn pays for the sacrifice by favours of every kind to the man who causes it to be offered." The defect in this note lies in the commentator's forgetfulness of the heavenly sacrifice. *Dakshina* in the verse in question is, no doubt, sacrificial recompense, but it is the heavenly recompense of the heavenly sacrifice. Verse 5 referred to in the note says, "Sister of Varuna, sister of Bhaga, first among all sing forth, O joyous Morning. Weak be the strength of him who worketh evil: may we subdue him with our car the *Dakshina*." The evil-worker is the demon of darkness who is subdued with the help of the dawn. As for M. Bergaigne's contention that the word *dakshina* is used in no other sense in the Rig Veda than that of material sacrificial recompense,

we do not think that it is well-founded. R. V., III, 58, 1 settles the question beyond dispute and against M. Bergaigne. It says, "The Ancient's Milch-cow yields the thing we long for: the son of Dakshina travels between (heaven and earth). She with the splendid chariot brings refulgence. The praise of Ushas hath awoke the Asvins" According to European commentators themselves "the Milch-cow is bounteous Ushas or Dawn, the daughter of ancient Dyaus or Heaven," and "the son of Dakshina is Agni, the sun who travels between heaven and earth" (Griffith). The thing which the Milch-cow or Dawn yields is surely the sun, who is also called son of Dakshina. Dakshina is, therefore, beyond doubt, identified with the Milch-cow or Dawn. She is also said to bring refulgence with her chariot, and finally, she is called by the name of Ushas. Dakshina, we therefore conclude, is not only the material gift which the terrestrial priest receives from the human sacrificer, but is also the heavenly gift of dawn which the heavenly priest Agni receives from the celestial sacrificer, Indra. Such is the thing which the Trishtup, the presiding metre of the mid-day libation at which the priest takes away his Dakshina, secured for the sacrifice in order to make it complete in all its essentials before Soma, the article of sacrifice itself could be brought, a task to be accomplished by the Gâyatri,

the most sacred and most powerful of all metres.

THE SYLLABLES.

Next comes the speculation on the numbers of syllables or *aksharas* contained in the three metres. A name given to Vâk in the Rig Veda is Aksharâ. As, for instance, VII, 15, 9 says, "The men come near thee (Agni) for their gain, the singer's with their songs of praise : Aksharâ (Vâk), thousand-fold, comes near to thee" and, again, we have in VII, 36, 7, "May the mighty Maruts, too, rejoicing, aid our devotion and protect our offspring. Let not swift-moving Aksharâ neglect us : they have increased our own appropriate riches." Now, the word *aksharâ* is interpreted as 'the imperishable goddess of speech' (Wilson), that is, one who is not (a) wasted (*kshara*). But the term for a letter or syllable in Sanskrit is *akshara*, and Vâk or speech can very well be conceived as consisting of letters or *aksharas*. Aksharâ can, therefore, be also interpreted as Aksharâtmikâ or she whose self consists of *aksharas*. Vâk, again, is, as we have seen before, identified with the metres, and is also said to consist of four parts. (According to R. V., X, 71, 11, these four parts are Rik, Sama, Yaju and Jatavidya, but in the Purusha Sukta (verse 9) they are identified with the four Vedas, Rik, Sama, Yaju

and Atharva.) Now, it can be argued:—Vāk is the metres and the aksharas are her self, and she also consists of four parts ; therefore, the metres are composed of four aksharas. This argument may seem strange, but it was surely by means of some such argument that the Brahmanas formulated the theory that when the three metres went to fetch Soma they consisted of four syllables or aksharas each. Then they worked out a queer problem of arithmetic for reconciling this theory with the fact that the three metres, Gâyatri, Trishtup, and Jagati, consisted of feet containing eight, eleven and twelve syllables respectively. The problem was how to evolve 8, 11 and 12 out of the three 4's of the three metres, and it was solved thus :—

$$8 = (4 + 3 + 1)$$

$$11 = (4 + 3 + 1) + 3$$

$$12 = (4 + 3 + 1) + 3 + 1$$

The process is very simple. The four syllables of the Gâyatri, the most sacred and most powerful of the three, are kept intact. But the Jagati, the least important of the three, is deprived of three syllables and the Trishtup of one, leaving one and three syllables respectively. These 1+3 syllables are given to the Gâyatri to make up its 8. The 8 of the Gâyatri is then added to the 3 of the Trishtup to make the Trishtup's 11 ; and the 8 of the Gâyatri and the 3 of the Trishtup are added to the 1 of the Jagati to make up the

Jagati's 12. Put in the sacrificial language the story runs as follows :—

“The Gâyatri also seized the syllables which the two other metres (Jagati and Trishtup) had lost.

* * * * *

The Gâyatri lifted the morning libation up (to the gods) ; but the Trishtup was unable to lift up the mid-day libation. The Gâyatri said to her, 'I will go up (with the mid-day libation) ; let me have a share in it.' The Trishtup consented, and said, 'Put upon me (who consists of three syllables) these eight syllables.' The Gayatri consented, put upon her (eight syllables).

* * * After having obtained thus eight syllables, she lifted the mid-day libation up (to heaven). The Jagati, which had only one syllable, was unable to lift the third libation (up). The Gâyatri said, 'I will also go up (with thee) ; let me have a share in this (libation).' The Jagati consented (and said), 'Put upon me those eleven syllables (of the Gâyatri and Trishtup joined).' She consented and put (those eleven syllables) upon the Jagati.

the Jagati. * * *

* * * * *

Thence it comes that the Gâyatri has eight, the Trishtup eleven and the Jagati twelve syllables.” (Ait. Br. III, 3, 26 & 28.)

Thus the Brahmana not only saves the glory of the Gâyatri inspite of its possessing a lesser number of syllables than either the Trishtup or

the Jagati, but also indicates that the Gâyatri-takes an important part in the mid-day and evening libations also. But then it is not to be supposed on the authority of this fanciful story that the Gâyatri, Trishtup and Jagati are the only metres that are always used in the three libations. As an instance to the contrary the Satapatha Brahmana says in relation to the Saptadasa-stoma that "the Gâyatri, forsooth, bears the morning libation (to the gods), the Trishtup the mid-day libation, the Jagati the evening libation,—but, then, the Trishtup bears the mid-day libation, not alone, (but) with the Gâyatri and the Brihati ; and the Jagati (bears) the evening libation, not alone, but with the Gâyatri, the Kakup, and Ushnih, and the Anushtup," no mention even of the Trishtup being made in this evening libation which is accompanied by a *stotra* called Arbhava or Tritiya Pavamana Stotra consisting of five parts composed chiefly of Gâyatri, Kakup, Ushnih, Anushtup and Jagati metres respectively. (Sat. Br. IV, 2, 5,20).

KRISANU'S ARROW.

As for that part of the Aitareya Brahmana's story in which it is said that Krisanu, a guardian of the celestial Soma, struck the falcon-shaped Gâyatri with an arrow and thus cut off the nail of her left leg and that from the different parts of the nail and the arrow there arose the

porcupine, a kind of goat, the dundubha snake, &c, we clearly see in it the well-known tendency of myth-makers to assign mythical origins to even the smallest things on earth. The Satapatha Brahmana follows the Rig Veda more faithfully and says that when the Gâyatri flew towards Soma, a footless archer aiming at her while she was carrying him off, severed one of her feathers (or leaves, *parni*) which on falling on earth became a parna (palâsa—*Butea Frondosa*) tree (Sat. Br., III, 3, 4, 10).

GANDHARVAS AND LADIES IN THE SACRIFICE

We have thus considered, one by one, all the points contained in the story of the acquisition of Soma by the metres, or the Gâyatri metre in particular, for the sacrifice. We have shown how the Soma-bearing Falcon of the Rig Veda came to be conceived by later theologians as equivalent first to Vâk, then to the seven principal metres, then to three metres and lastly to the Gâyatri. But as this order of thought is not absolute or based on any definite fixed condition, we find it expressed in an inverted order in a story contained in the Satapatha Brahmana. The Rig Veda says, "Trita's ladies (दृतस्य योषणः) onward urge the Tawny-coloured with the stones, Indu for Indra, for his drink" (IX, 32, 2) and, again, "Trita's ladies with the stones onward impel this Tawny One, Indu to Indra, for his drink" (IX, 38, 2).

Trita is the celestial purifier of Soma and as a solar deity, whether above or below the horizon, his ladies represent solar light by means of which the Soma is purified. This condition of the heavens is imitated in the artificial sacrifice, as it is said in R. V. VIII, 31. 5. "O Gods, with constant draught of milk, husband and wife (dampati) with one accord press out and wash the Soma juice." Again, the Rig Veda says, "The Gandharvas have seized hold of him (Soma), and in the Soma laid the juice. Flow, Indu, flow for Indra's sake." (IX, 113, 3). The chief of the Gandharvas is Visvavasu, who is said to be the protector of virgins and very fond of women ; for instance, in the bridal-hymn of Suryâ, the bard says, "Rise up from hence ; this maiden hath a husband. I laud Visvavasu with hymns and homage. Seek in her father's home another fair one, and find the portion from of old assigned thee." From this the Satapatha Brahmana builds up the story that the ladies said to be present in the purification of the Soma are required for decoying the Gandharvas or the Gandharva Visvavasu from the Soma which they or he carried away. Now, the danger from the Gandharvas is supposed to have occurred twice in the course of the sacrifice performed by the gods—first, at the time of securing the Soma and, next, at the time of guarding the soma-juice. The fittest person for averting the first

danger was Vâk, for she was both a woman and the proper agent for capturing the soma. We, therefore, read in the Brahmana: "Soma was in the sky, and the gods were here on earth. The gods desired, 'would that Soma might come to us ; we might sacrifice with him when come.' They created those two illusions Suparnî and Kadru. The Gâyatri flew up to Soma for them, When she was carrying him off, the Gandharva Visvavasu stole him from her. The gods were aware of this—'Soma has indeed been removed from yonder (sky), but he comes not to us, for the Gandharvas have stolen him.' They said, 'The Gandharvas are fond of women. Let us send Vâk to them, and she will return to us together with Soma'. They sent Vâk and she returned to them with soma." (Sat. Br. III, 2, 4, 1-2-3).

The true meaning of the legend that the Soma was stolen after he had been captured lies in the fact that after the occurrence of the full moon in the talons of the Aquila the moon became, in the arctic home of the ancient Aryans, invisible for some time. Failing this explanation the later theologians supposed that the Soma was carried off by a Gandharva from whom it required a lady to bring it back, and that this lady was Vâk. We have thus here Vâk not only differentiated from the Gâyatri, but even made a later agent, in the conquest of

Soma. But it is not always that the Brahmana makes Vâk a later agent, as, for instance, we read in III, 6, 2, 8 of the Satapatha Brahmana that Suparnî, who is indentified with Vâk, “brought forth the metres ; and Gâyatri fetched Soma from heaven.”

As for the danger from the Gandharvas for the second time, the Rig Veda (X, 139, 4) says, “Waters from sacrifice came to the Gandharva Visvâvasu, O Soma, when they saw him (Savitar or Sun). Indra, approaching quickly, marked their going, and looked around upon the Sun’s enclosures.” The waters referred to here are the celestial waters the flow of which indicates sunshine and in which the celestial Soma is washed and purified ; for, in the next verse but one (verse 6) the poet says, “In the flood’s track he (Visvavasu) found the booty-seeker (Indra) ; the rocky cow-pen’s doors (the portals of the east) he threw wide open. These, the Gandharva told him, flowed with Amrita. Indra knew well the puissance of the dragons (the ministers of darkness).” Again, it is said in the Rig Veda, “Whom (Soma), bright with native splendour, crushed between the pair of pressing stones—The wavy friend whom Indra loves—the twice-five sisters dip and bathe” (IX, 98, 6). Now, these two recorded facts of the meeting of the waters with the Gandharva Visvavasu and of the presence of ladies in the

washing of Soma, threw the Vedic theologians into a speculative mood with the result that the following story was evolved:—"When the head of the sacrifice was struck off, its sap running entered the waters; those Gandharva Soma-wardens watched it. The Gods then said, 'These Gandharvas surely are a great danger to us here, how can we carry off the sap of the sacrifice to a place free from danger and injury?' They said, 'Well, the Gandharvas are fond of women; let us go together with the wives. The Gandharvas, surely, will hanker after the wives, and we shall carry off that sap of the sacrifice to a place free from danger and injury. They went with the wives, the Gandharvas did indeed hanker after the wives, and they (the gods) carried off that sap of the sacrifice to a place free from danger and injury. And so does that (Adhvaryu of the terrestrial sacrifice) now go (to the water) with the wives; the Gandharvas hanker after the wives, and he carries off that sap of the sacrifice to a place free from danger and injury' (Sat. Br., III, 9, 3, 18-22).

SUPARNI AND KADRU,

But we are digressing from our immediate purpose. The metres, we have seen, went to fetch the Soma in the form of suparnas (birds). Vâk, therefore, who is the mother or generator of the metres, could well be conceived of as a

Suparnî (the feminine of Suparna) The Sata-patha Brahmana (III, 2, 4, 1—quoted in page 192), consequently says that when the gods desired to have the Soma “they created those two illusions Suparnî and Kadru.” and also indentifies Suparnî with Vâk by noting that “Suparnî, forsooth, was Vâk, and Kadru was this (earth)” (III, 6, 2, 2). Kadru is here indentified with the earth because the Soma was to be brought down to the earth. The Aitareya Brahmana seeks to explain this indentification by saying that this earth (*iyam*) is the queen of the serpents, for she is the queen of all that moves (*sarpat*)” (V, 23). Searching through the Rig Veda for an authority for this explanation we get a verse which says, “In battle of a thousand arms Indra drank Kadru’s Soma juice : there he displayed his manly might” (R. V., VIII, 45, 26). In the terrestrial sacrifice the Soma juice is effused on the earth for Indra to drink. The theologians, therefore, supposed that when the Rig Veda said that “Indra drank Kadru’s Soma juice,” it meant that Indra drank the Soma juice effused on or, belonging to the earth. But then Kadru was Sarparâjñî or the queen of *sarpas* (serpents). In order to reconcile this with the interpretation that Kadru was the earth, the word *sarpa* was given the wide connotative meaning of anything that moved on the earth (root *srip* = to move) instead

of the restricted denotative meaning of serpents, in which only the word is known in general Sanskrit literature. Later commentators have not, evidently, been satisfied with this explanation given in the Brahmanas; for, the word Kadru in the verse quoted above has received quite a number of meanings at their hands, viz, a rishi, an officiating priest in the sacrifice, and even a soma vessel (St. Petersburg Lexicon). Kadru may be called a rishi, for a whole hymn (R. V., X, 189) stands in the name of Sarparâjnî in the Rig Veda, but merely calling her a rishi does not elucidate the sense of the verse in question. As for giving the word Kadru the meaning of a sacrificing priest or of a soma vessel, we think, with all deference to the commentators and, particularly, to the learned editors of the St. Petersburg Lexicon, that the Rig Veda contains nothing to warrant either of these meanings. To enquire as to who or what is referred to by the word Kadru we must leave the guidance of interpretations or rather conjectures made whether by the theological authors of the Brahmanas or by other commentators, eastern or western. We must start from the point that Kadru is the Sarparâjnî in the Rig Veda and assign to the word Sarparâjnî the most sensible meaning of 'the queen of serpents,' and thus give her the character in which she is known in the entire Pauranic Literature. Next, we must

find out what is meant by serpents in the Rig Veda and this is no difficult task to accomplish. Serpents, we have pointed out throughout this book, stand for demons of darkness in our ancient mythologies and are in the Rig Veda represented by Vritras in the plural or by the Vritra or the *Ahi* in the singular, the word *ahi* meaning serpent. The Veda says, "He (Surya) rose, a light, that kills Vritras and enemies" (X, 170, 2), and, again, "Surya, thou mountest up to meet the Hero (Indra) famous for his wealth, Who hurls the bolt and works for man: Him who with might of both his arms brake nine-and-ninety castles down, Slew Vritra and smote Ahi dead" (VIII, 82, 1&2). The Rig Veda is full of such references to the destruction of Vritras or Serpents at the appearance of Surya. It is over such creatures as these serpents that Kadru holds sway. She is darkness or night personified, and is the queen of serpents or demons of darkness. Opposed to her in the contest of light and darkness must be the queen of gods, an agent supposed to harbinger and bring in gods of light. This agent is Vâk who, as we have seen before, "travels with the Rudras and the Vasus, wanders with the Adityas and All-gods, holds aloft both Varuna and Mitra, Indra and Agni, and the pair of Asvins, cherishes and sustains high-swelling Soma, and supports Tvashtar, Pushan and

Bhaga" (R. V., X, 125, 1 and 2). She is "the queen (*râshtrî*), the gatherer-up of treasures, most thoughtful, first of those who merit worship" (R. V., 125, 3), and "when she, Vâk, queen of gods (*devânâm râshtrî*), the gladdener, was seated, uttering words which no one comprehended, the heaven's four regions drew forth drink and vigour" (R. V., VIII, 89, 10). The struggle between the two queens, the queen of demons of darkness and the queen of gods of light and its offshoot are shortly and clearly set forth in R. V., X, 189, a Gâyatri hymn of which the speaker is the Sarparâjnî who is also its deity alternately with the Sun. We shall quote this hymn :—*

"This spotted Bull (Sun) hath come, and sat before the Mother (Dawn) in the east,

Advancing to his Father Heaven.

2. Expiring when he (Sun) draws his breath, She (Sarparâjnî Kadru) moves along the lucid spheres :

The Bull (Sun) shines out through all the sky.

3. Vâk is conceived for the Bird (Sun) (*Vâk patangâya dhîyate*) : It rules supreme through thirty realms

* âyam gauh prisnirakramîdasadanmâtaram purah |
pitaram cha prayantsvah ||

2. antascharati rochanâsya prânadapânâtî |
vyakhyanmahisho divam ||

3. trimsaddhâma vi râjati vâk patangâya dhîyate |
prati vastoraha dyuvih ||

Throughout the days at break of morn."

When dawn appears the contest between light and darkness, between Vāk and Sarparājñī or between Suparnī and Kadru, is brought to a close in favour of light, Vāk or Suparnī.

We have explained before in Chapter II how the constellation of the Horse made itself conspicuous during the long night of arctic Aryans about 4000 B. C., and was intimately connected with the beginning and end of the period of continuous darkness. The Rig Veda contains many references to this horse as the white horse of the Asvins, the twin-gods presiding over evening and morning. This horse which the Asvins are said to have bestowed on Pedu, one of their proteges, is described as being "mighty with nine-and-ninety varied gifts of strength" (R. V., X, 39, 10), because it flourished during the period of darkness which lasted for ninety-nine nycthemerons. It was, therefore, on the appearance and position of this Horse above the horizon that the issue of the contest at any particular moment depended. The Veda contains two long hymns (R. V., I, 162 and 163) of which the deity is this Horse. (The more important portions of these two hymns have been explained in Chapter II). The speaker of these hymns is Dirghatamas, the rishi personifying the period of long darkness. Dirghatamas says, "Thyself from afar I recog-

nised in spirit—a bird that from below flew through the heaven. I saw thy head still soaring, striving upward by paths unsoiled by dust, pleasant to travel” (I, 163, 6). The head which Dirghatamas had seen still soaring was that part of the constellation Pegasus which had been above the western horizon in the evening of the long night, its hind part or tail having already sunk below the horizon. The appearance of the Horse was, on the authority of the above verse, supposed by the authors of the Brahmanas to have been a fit theme for a contest between Suparnî and Kadru in the evening, a contest in which Kadru was to win by her perception, like Dirghatamas, of the tailless trunk of the Horse. The Vedic legend consequently took the following shape in the Brahmanas :—

‘Soma was in heaven and the gods were here on earth. The gods desired, ‘Would that Soma might come to us ; we might sacrifice with him when come.’ They produced those two illusions Suparnî and Kadru ; Suparnî, forsooth was Vâk (speech) and Kadru was this (earth). They caused discord between them. They then disputed and said, ‘Which of us shall spy farthest, shall win the other.’—‘So be it’. Kadru then said, ‘Espy thou’. Suparnî said, ‘On yonder shore of this ocean there stands a white horse at a post, that I see ; dost thou also see it ?’—‘I verily do.’ Then said Kadru, ‘Its tail was just

now hanging down ; there, now the wind tosses it, that I see.' Now, when Suparnî said, 'On yonder shore of this ocean' the ocean forsooth is the altar, she thereby meant the altar ; 'there stands a white horse at a post,' the white horse forsooth is Agni and the post means the sacrificial stake. And when Kadru said, 'Its tail was just now hanging down ; there, now the wind tosses it, that I see,' this is nothing else than the rope. Suparnî then said, 'Come let us now fly thither to know which of us is the winner.' Kadru said, 'Fly thou thither, thou wilt tell us, which of us is the winner.' Suparnî then flew thither ; and it was even as Kadru had said. When she had returned, she (Kadru) said to her, 'Hast thou won or I?'—"Thou," she replied. Such is the story called 'Suparnî—Kadrava.' Then said Kadru, 'Verily, I have won thine own self ; yonder is Soma in the heaven : fetch him hither for the gods, and redeem thyself from the gods ('therewith redeem thee from death'—Kânva recension)—'So be it.' She brought forth the metres ; and that Gâyatri fetched Soma from heaven" (Sat. Br., III, 6, 2, 2 to 8).

THE HORSE.

The Rig Veda says, 'May the Priest (Agni) come circling the measured stations, and with him bring the earth's autumnal fruitage. Let the horse neigh led near, let the steer bellow : let

Vāk go between both worlds as herald" (R. V., I, 173, 3). This verse marks the close of autumn, announces Agni, the fire-god of the wintry night, expects the appearance of the constellation of the Horse and refers to the recitation of hymns by men on earth to herald this condition of the heavens. But in ritualising all this the Brahmana identifies Agni with the Horse and sends Suparnî with the mission of enquiring into the appearance of the Horse. The Brahmana, surely, found its authority for this in verses like IV, 15, 1 which says, "Agni the Herald, like a horse, is led forth at our solemn rite, god among gods adorable." However that may be, the defeat of Suparnî meant the defeat of light and the winning of her "own self" by Kadru or darkness. If she wanted to live she must fetch Soma who, "Pavamana, hath produced the lofty Law, the brilliant light, destroying darkness black of hue" (R. V., IX, 66, 24). This Soma was brought to Kadru by Suparnî who thus saved herself from utter destruction. During the night the moon alone kept up light in the world, and the advent of the moon was heralded by hymns recited by men on earth. But according to the ritualistic theory of the Brahmanas all this simply indicates, so far as the artificial sacrifice is concerned, the fetching of Soma to the earth by the Gâyatri, Kadru being identified with the earth as we have seen before. We can now

explain what is meant by the expression "Indra drank Kadru's Soma juice" (R. V., VIII, 45, 26, see page 195). It means that the Soma juice or lunar nectar effused during night was drunk by Indra who, thus invigorated, vanquished the serpents or demons of darkness and caused the sun to appear. The following hymn (R. V, IX. 42) contains a beautiful and unmistakable description of this condition of the heavens :—

"Engendering the sun in floods, engendering heaven's lights, green-hued,

Robed in the waters and the milk,

2. According to primeval plan this Soma, with his stream, effused

Flows purely on, a god for gods.

3. For him victorious, waxen great, the juices with a thousand powers

Are purified for winning spoil.

4. Shedding the ancient fluid he is poured into the cleansing sieve :

He, thundering, hath produced the gods.

5. Soma, while purifying, sends hither all things to be desired,

He sends the gods who strengthen Law.

6. Soma, effused, pour on us wealth in kine, in heroes, steeds and spoil,

Send us abundant store of food."

INDRA AND MAHENDRA.

The Rig Veda speaks of two important points of

time during a year at which specially Indra manifests his strength by vanquishing and destroying demons of darkness—they are the end of the long continuous night and the beginning of the long continuous day. The Veda clearly indicates the end of the long continuous night by saying, “Great is, in truth, the number of the Mornings which were aforetime at the Sun’s uprising. Since thou, O Dawn, hast been beheld repairing as to thy love, as one no more to leave him. They were the gods’ companions at the banquet, the ancient sages true to Law Eternal. The Fathers found the light that lay in darkness, and with effectual words begat the Morning” (VII, 76, 3 and 4). Contrast with this the following description of the beginning of the long continuous day (R. V., IV, 30) when day is lengthened by night, the last and most powerful demon of darkness is slain and Ushas is crushed instead of being courted by the Sun:—

“O Indra, Vritra-slayer, none is better, mightier than thou : Verily there is none like thee.

2. Like chariot-wheels these people all together follow after thee : Thou ever art renowned as Great (*mahān*).

3. Not even all the gathered gods conquered thee, Indra, in the war, when thou didst lengthen days by night [or, according to Wilson who follows Sayana—verily all the gods with thee (for

their strength, have warred (with the Asuras) ; wherefore thou hast destroyed them by day and by night.]

4. When for the sake of those oppressed, and Kutsa as he battled, thou stolest away the Sun's car-wheel.

5. When fighting singly, Indra, thou overcamest all the furious gods (or, according to Sayana, all those who strove against the gods), thou slewest those who strove with thee.

6. When also for a mortal man, Indra, thou speddest forth the Sun, and holpest Etasa with might.

7. What ? Vritra-slayer, art not thou, Maghavan, fiercest in thy wrath ? So hast thou quelled the demon too.

8. And this heroic deed of might thou, Indra, also hast achieved, that thou didst smite to death the Dame, Heaven's Daughter, meditating ill.

9. Thou, Indra, Mighty One (*mahân*), 'didst crush Ushas, though Daughter of the Sky, When lifting up herself in pride.

10. Then from her chariot Ushas fled, affrighted, from her ruined car, When the strong god had shattered it.

11. So there this car of Ushas lay, broken to pieces, in Vipâs, And she herself fled far away."

Corresponding to the above two great conditions of the heavens there are two aspects of Indra. In

the first aspect he delivers light from a complete bondage to darkness, and in the second he destroys darkness altogether by killing Vritra, its greatest friend and minister. In the verses quoted just above, the Vritra-slaying Indra is called *mahân* (great), and it is surely on this authority that the Brahmana (Sat. Br., IV, 3, 3) draws the following characteristic distinction between Indra and Mahendra (Mahân Indra) :—

“Before the slaughter of Vritra, he was indeed Indra ; but when he had slain Vritra, he became the Great Indra (Mahendra), even as one who has conquered all around becomes a Great King (Maharaja) ; therefore, he (Adhvaryu) draws the Mahendra cup. And, moreover, he, forsooth, makes him great for the slaughter of Vritra : therefore also he draws the Mahendra cup. He draws it in the Sukra vessel, for bright (*sukra*) and great indeed is he (the sun) that burns yonder : therefore he draws it in the Sukra vessel.” Allied to these two aspects of Indra there are two Soma-feasts, in both of which Indra may be said to drink “Kadru’s Soma juice,” that is to say, Soma juice effused during night or darkness. But it is at the inception of the long continuous day alone when Vritra is slain that Soma is secured by the Eagle or *Syena* as we have explained in Chapter III (see also R. V., IX, 89, 2 and 7), “enters his place as a *Syena*” (R. V., IX, 61, 21 ; IX, 62, 4) and is lauded as

usual with hymns (R. V., IX, 68, 8). But at the end of the long continuous night he simply "enters the place of Law" (R. V., IX, 64, 11 and 22), is "decked with songs" (IX, 63, 20) and, while purifying, "urges onward speech (vâcham) thousandfold with the lore of hymns" (IX, 64, 25). Later theologians, however, who were ignorant of the uranographic identity of the Syena and had no scope, in their sub-tropical Indian home, for a long-day or long-night sacrifice, invested Vâk or the metres with the form of the bird and conceived them as securing Soma for the sacrifice throughout the year. And in this manner the long-night and long-day sacrifices which the sub-tropical Hindus did not require to perform at all were easily got rid of as such and made to conform to the ordinary daily sacrifice.

THE PECULIARITY OF THE MAHABHARATA STORY.

We have thus all the essential parts of the Mahabharata story of Garurha evolved in the Brahmanas out of cognate elements contained in the Veda. We have seen how Vâk or Speech, which was already deified in the Rig Veda by regular steps from the widest conception of articulate sound and conceived not only as an essential companion of gods of light but even as a condition precedent to their appearance and pros-

perity in heaven, is considered in the Brahmanas as the *only* agent, by itself or through the metres, of fetching Soma for the sacrifice, celestial or terrestrial, and from this was evolved the idea of investing Vâk or the metres with the form of a bird which was also, according to the Veda, a powerful agent for capturing the perennial source of heavenly nectar. And as the Soma sacrifice was intimately connected with the winning of light and destruction of darkness, Vâk as Suparnî (a she-bird) was conceived as the principle of light pitted against Kadru, the principle of darkness. The Mahabharata story puts Vinata, the Pauranic mother of birds, in the place of Suparnî, but the idea is the same in both. The quarrel between the contrary principles of light and darkness reaches its climax when the Horse appears in the ocean of space with its tail still hanging below the horizon, and the Brahmanas and the Mahabharata give exactly one and the same version of this part of the legend. The principle of light is defeated and enslaved. According to the Brahmanas this captivity is brought to a close by the conquest of Soma by the Gâyatri in the form of a suparna or bird. The Mahabharata makes out the celestial nectar as conquered by Garurha *alias* Suparna, and also gives the story a distinctly Pauranic touch by representing Garurha as fighting against all the gods including Indra, whereas the Brah-

mana says that the Gâyatri fetched the Soma for the gods. The Mahabharata, in fact, introduces into the legend the substance of the essentially Pauranic story of the struggle between Devas and Asuras over the possession of *amrita*. The only justification for doing this lies in the fact that the Rig Veda speaks of Indra as drinking Kadru's Soma juice. But Kadru's Soma juice means Soma juice effused during night or the prevalence of darkness. The interpretation given by the Mahabharata to this Vedic passage is, however, immensely superior to that given by the Brahmanas which identify Kadru with the earth. The Rig Veda says, "First was born Savitar's suparna Garutman" (X, 149, 3), and it is surely on this and similar authorities that the Mahabharata makes Garurha *alias* Suparna the *vahan* or bearer of Vishnu, a Sun-god like Savitar. Sayana makes suparna Garutman a brother of Garurha, but, as we have pointed out in Chapter III, there is hardly any justification for making such a distinction between the two, both being the same as the Syena or Falcon who conquers Soma for the gods.. The Brahmana does away with the special character of the Falcon's conquest of Soma and identifies the Falcon with the Gâyatri invested with the form of a bird and conceived of as the perennial agent for fetching the Soma for the sacrifice. And out of this is evolved the Mahabharata story in which

the sacrificial element of the legend is entirely discarded and the Pauranic conception of the struggle between Devas and Asuras is introduced.

SOMA IDENTIFIED WITH VRITRA.

We have had occasion to notice before while explaining the Greek legend of Tytios (see pp. 81-82) how a synchronous disappearance of darkness and the full moon at the beginning of the long continuous day furnished an opportunity to imaginative poets to think that Soma was Vritra. Subsequently, the conception that Soma was Vritra lingered on in men's minds, but the origin of this conception slipped out of their brains after they had migrated and settled in a land where the physical conditions necessary for its remembrance altogether ceased to operate. It will not, therefore, be entirely out of place here to enquire to what length the authors of the Brahmanas were carried by this notion of identity between Soma and Vritra. The Satapatha Brahmana is forced to weave the following story :—

“Indra when he had hurled the thunderbolt at Vritra, thinking himself to be the weaker, and fearing lest he had not laid him low, hid himself. The gods also hid themselves in the same place.

The gods then said, ‘Verily, we know not if Vritra be slain or alive ; come let one of us find out, if Vritra be slain or alive.’

They said unto Vayu—Vayu, forsooth, is he

that blows yonder—‘Find thou out, O Vayu, if Vritra be slain or alive ; for thou art the swiftest among us : if he lives, thou indeed wilt quickly return hither.

He spake, ‘What shall be my reward then ?’ — ‘The first Vashat of King Soma.’—‘So be it.’ So Vayu went and lo ! Vritra slain. He spake, ‘Vritra is slain ; do ye with the slain what ye list.’

The gods rushed thither,—as (those) eager to take possession of their property, so (it fared with) him (Vritra-Soma) : what (part of him) one of them seized that became an ekadevatya (graha, belonging to one deity), and what two of them, that became a dvidevatya, and what many (seized), that became bahudevatya ;—and because they caught him up each separately (vi-grah) by means of vessels, therefore (the libations) are called graha.

He stank in their nostrils,—sour and putrid he blew towards them : he was neither fit for offering, nor was he fit for drinking.

The gods said to Vayu, ‘Vayu, blow thou through him, make him palatable for us.’ He said, ‘What shall be my reward then ?’—‘After thee they shall name those cups’—‘So be it,’ he said, ‘but blow ye along with me.’

The gods dispelled some of that smell, and laid it into the cattle,—this is that foul smell in (dead) cattle : hence one must not close (his nose) at

that foul smell, since it is the smell of King Soma

Then Vayu blew a second time through him and thereby made him palatable; whereupon he was fit for offering, fit for drinking" (Sat, Br, IV, 1, 3, 1-10).

It is simply impossible to consider this attempt to illustrate the identity between Soma and Vritra with any seriousness. Indeed, it seems strange how deeply learned, wise, grave and level-headed men like the authors of the Brahmanas could indulge in such apparently puerile ideas and arguments. But we often judge these great men rather harshly. The loss of the clues to legends like that of Soma and Vritra left them no other alternative than to explain them anyhow, however fanciful the interpretations might be, for they could not bring themselves to disbelieve the legends. They believed in an identity between Vritra and Soma, and so they argued as follows :—Soma no doubt was Vritra. Now, it is said that Indra slew Vritra. It is also said that Vritra was a huge serpent. The gods drank Soma, so that if Soma was Vritra they drank Vritra, the serpent, whose dead-body must have emitted hideous smell owing to putrefaction. This smell must, somehow, have been dispelled before Vritra-Soma could become fit for libations and drinking. Now, who could dispel this smell except Vayu or Wind, especially as in the

Rig Veda he is said to be the chief associate of Indra in slaying Vritra? But everything in this world is *sat* (non-destructible), so the smell that was dispelled by Vayu must still remain in this world. It is, therefore, concluded that it must be the smell of dead cattle that was at one time the smell of the dead serpent Vritra, and one must not close his nose at that smell, for it is the smell of Soma that is drunk by the gods.

Thus argued the learned Brahmins in order to explain the legend, to disbelieve which was to them the highest form of impiety and sacrilege.

THE PRESSING STONE.

The scholiast is not, however, completely successful in thus explaining away everything in relation to the Vedic conquest of Soma and bringing everything within the narrow pale of his sacrificial altar and its outskirts. He sometimes finds even his elastic theories failing to explain every part of the legend. In the Veda it is said that Soma is pressed between stones. It is also said that Soma was in the sky. How to reconcile the two? The scholiast then argued as follows:—Soma was in the sky, Soma was Vritra. Now, the waters are said to have been confined in mountains and also by Vritra. The mountains, therefore, surely formed the body of Vritra and, consequently, of Soma. By rock

alone can a rock be perfected. It must, therefore, be inferred that the rocky body of Soma was perfected by rock. The Soma-press is, therefore, of rock. And it is because the rocky soma is slain by the rocky press that he returns to life (Sat. Br., III, 9, 4, 2).

Perhaps this sort of argument, this unique form of logic, failed to satisfy even the scholiast himself. So, a few paragraphs after the above, he throws out the suggestion that "that Upam-susavana (pressing stone), forsooth, is in reality Aditya Vivasvan (the sun), it is the pervading vital air (vyâna) of this sacrifice" (Sat. Br., III, 9, 4, 7.)

OVERTURNING OF CUPS OF SOMA.

Assuming that Soma is moon, the Satapatha Brahmana preserves an excellent note of its course in an arctic region. "Once upon a time the gods, while performing sacrifice, were afraid of an attack from the Asura Rakshas. The Asura Rakshas assailed them from the south, and overturned those southern cups of Soma—even that southern Soma-cart they overturned; but that other northern they could not overturn; the northern cart then kept the southern cart steady. And because they could not overturn that (northern cup), therefore it is called Dhruva (firm)" (IV, 2, 4, 19). This clearly refers to the obscuration of those phases of the moon which fall

completely below the horizon in every month in an arctic region.

THE SUN IS THE EATER OF THE MOON.

A little before the above the Brahmana expresses an opinion which tallies almost exactly with our theory of the drinking of the moon by the sun. It says, "The Sukra and Manthin (grahas), forsooth, are his eyes. Now the Sukra, indeed, is he that burns yonder (the sun); and because it burns there, therefore it is (called) Sukra (bright). And the Manthin, indeed, is the moon.

"He mixes it with (barley) meal; thus he makes it to be gruel, whence it is (called) Manthin. Now those (sun and moon), forsooth, are the eyes of these creatures, for were those two not to rise, these (creatures) could not distinguish even their own hands.

"One of them is the eater, and the other the food; to wit the Sukra, the Sukra is the eater and the Manthin the food.

"To one of them corresponds the eater, to the other the food; to wit the eater corresponds to the Sukra and the food to the Manthin. Now these two (cups) are drawn for one (person) and offered to another. There are two Asura Rakshasas, Sanda and Marka; for them they are drawn; and to deities they are offered. The reason for this is as follows:—

"Now when the gods drove away the Asura

Rakshasas, they could not drive away these two ; but whatever (sacrificial) work the gods performed, that these two disturbed and quickly fled.

“The Gods then said, ‘Contrive ye how we shall drive away these two.’ They said, ‘Let us draw two cups (of Soma juice) for them ; they will come down to us, and we shall seize them and drive them away.’ They accordingly drew two cups (of Soma) for them, and they came down, and having seized them they (the gods) drove them away. This is why (the two cups) are drawn for Sanda and Marka, but are offered to deities” (Sat Br., IV, 2, 1, 1-6).

This account plainly says that the sun is the eater and the moon the food, and that the terrestrial ceremony is only a symbolical representation of a celestial phenomenon. The expulsion of Sanda and Marka signifies a continued prevalence of daylight for a period of time during which the demons of darkness are unable to interrupt the ceremony wherein the sun appears as the eater and the moon as the food.

THE EAGLE IN THE RAMAYANA.

We have come almost to the end of our labours. But before actually concluding them, we are unable to resist the temptation of placing before the reader some incidents related in that ever-green and ever-charming poem known as

the Ramayana. The profound pathos and divine simplicity of the life of Sita, whom a ploughman found at the point of the share and who was wedded to Rama, a hero of the solar race, have served not a little to sweeten and ennoble the domestic life of the Hindus. Purer far and more dignified than Helen, the beautiful gift of Aphrodite to Paris, Sita is carried off by the ten-headed Rakshasa Ravana while living with her husband Rama in Dandakâraṇya, the Forest of Punishment, in exile and apart from the world. Rama destroys the Rakshasa and delivers Sita. She passes, chaste, pure and glorified, through an ordeal of fire and is accepted as such by her hero-lord of divine origin. But alas ! poor Sita was born to be miserable throughout life in spite of her charming gifts of beauty, spotless chastity and unswerving attachment to her husband. The poisoned tongue of dame rumour speaks ill of her for having lived in Ravana's house, and she is banished by Rama and sent to the forest hermitage of the sage Valmiki, the apocryphal author of the Ramayana. In this forest she gives birth to twins who become versed in the story of their father's life and afterwards sing it before a most distinguished assembly including Rama during his Asvamedha sacrifice. Sita also appears before Rama during this sacrifice, but is asked by him to prove her innocence to the people by again passing through an or-

deal. The pain and humiliation of the situation become too much for her; she prays to her mother, Earth, to take her in; the earth gapes and Sita sinks down through the chasm, lost, lost for good, to bewailing Rama.

The student of comparative mythology at once sees in this story only a gorgeous poem evolved out of the great solar myth which lies at the bottom of all the national epics and poems of the Aryan race.* The story of the Ramayana, however, begins not with dawn or morning twilight but with evening twilight. Evening twilight, born of the earth, is carried away by the demon of darkness. The sun destroys this demon and delivers her in the morning. But the union of the sun and twilight is short, and she, Ushas or Dawn, is soon banished from her husband's presence. She, however, reappears in the evening, but only to return into the bowels of the earth from which she rose at the beginning of her life.

Here also the ubiquitous Eagle of Aryan mythology presents himself under various names and always as a friend of light. As Jatāyu, the pious and powerful king of vultures, he accosts Ravana in the act of carrying away Sita and is killed in the fight that ensues. The kidnapping of Sita takes place in the

* This theory does not disprove the existence of any substratum of historical truth in the story.

absence of her hero-lord Rama, that is, after sunset the evening twilight is outraged by the demon of darkness. The killing of Jatâyû is mythically the same as the eagle-hunting in the Norse story we have explained before (see p—98). When the sun sets in the vicinity of the constellation Aquila, the latter is hid in the splendour of the evening twilight, and if this twilight is supposed to be kidnapped by the demon of darkness at the same time, it is quite natural for a poet to suppose that Aquila is killed by the demon in an attempt on the part of the former to deliver the charming spouse of the sun from the clutches of darkness. And the poet of the Ramayana thus describes the scene of Jatâyû's death :—

“Lanka's Lord (Ravana) saw the brown-breasted and immensely strong Jatâyû (fallen) on the earth like an azure cloud, like a forest-fire quieted down. Thereupon seeing that bird felled on the earth and crushed by the onslaught of Ravana, Janaka's daughter Sita with countenance shining like the moon took him up again and shed bitter tears.”

This is a description of the mythical destruction of the constellation Aquila covered by the brilliance of evening twilight at the beginning of the long continuous night of an arctic habitation about six thousand years ago. The poet of the Ramayana clearly says, “When (after the

killing of Jatāyu) Vaidehi (Sita) was outraged by Ravana, the world, with everything, moving and non-moving, in it, became devoid of glory and covered with blinding darkness." The eagle puts in his appearance again under the name of Sampāti, Jatāyu's brother, when the monkey emissaries of Rama are despairing of finding out the whereabouts of Sita, and gives them the necessary information regarding the place where she is kept concealed by Ravana. This corresponds to the birth of Aquila at the Winter Solstice as described in the Mahabharata story, and marks the turning point in the struggle between light and darkness during the long night.

Towards the end of Rama's struggle with Ravana the bird reappears as Garurha himself, the son of Vinata, and frees Rama and his brother Lakshmana from the fetters composed of serpents with which Ravana's son Indrajit, the conqueror of Indra, had bound them. The poet says that while the two brothers were lying in a miserable condition in the coils of serpents "Garurha, the son of Vinata, came within their vision in a twinkling of an eye like a burning fire. On seeing the son of Vinata the powerful serpents composing the weapon with which Rama and Lakshmana, the greatest of men, were bound, all fled away with great hurry." Asked by Rama who he was, the bird said, "I

am your friend and external life. I am Garutman and have come with the object of rendering you help. Neither powerful Asuras nor the mighty monkeys nor Indra at the head of all Gods and Gandharvas would have succeeded in removing this terrible bondage, a weapon formed with charms by the wicked Indrajit. Forged into a weapon with demoniac charms these serpents who are sons of Kadru and possessed of sharp teeth with powerful venom, overcame you." In this story we find an allegorical reference to the same phenomenon of nature which forms the substance of the Mahabharata story of the release of Vinata by Garurha from bondage to the serpents of Kadru.



INDEX OF PASSAGES.

An asterisk is affixed to those passages which form the subject of special comment.

RIG VEDA.			Page
I, (reference to the whole)	...	...	140
24, 7	...	...	90
72, 10	...	...	90
116, 6 *	...	...	34
116, 7	...	...	34
117, 6	...	...	34
123, 1 *	...	...	183
123, 5 *	...	...	184
134, 3-4 *	...	128, 129	
135, 3 *	...	...	129
162, 1-2-3 *	...	39, 40, 199	
163, 1-2-3 *	...	39, 45, 199	
163, 2	...	...	34
163, 6*	...	...	200
164*	...	...	146
164, 17	...	...	45
„, 19*	...	...	148
„, 20*	144, 148, 150, 159	...	
„, 21*	...	145, 149, 159	
„, 22*	...	145, 149, 159	
„, 23*	...	145, 151, 159	
„, 24*	...	145, 151, 159	
„, 25*	145, 151, 159, 177	...	
33*	...	...	150
„, 45*	...	151, 158	
„, 46*	56, 67, 151, 158	...	
173, 3*	...	...	201
II, (reference to the whole)	...	...	140
11, 5	...	...	68
30, 1	...	...	167
42, 2	...	...	167
III, (reference to the whole) •	...	...	141
44, 3*	...	...	180
58, 1*	...	...	185
IV, (reference to the whole)	...	...	141
15, 1	...	...	202
19, 2	...	...	68
26, 1 to 7*	...	60, 61	
27, 1 to 5*	...	...	63
28, 1-2*	...	...	67
30*	...	...	204
51, 1	...	...	174
„, 4*	...	...	174
V, (reference to the whole)	...	...	141
30, 6	...	...	68
VI, (reference to the whole)	...	...	141
31, 3*	...	...	74
VII, (reference to the whole)	...	...	141
15, 9*	...	...	186
32, 22-23	...	177, 178	
36, 7*	...	...	186
76, 3-4*	...	...	204
VIII, (reference to the whole)	...	...	141
12, 9	...	...	72
„, 17	...	...	45
26, 21-22	...	...	130
31, 5	...	...	191
38, 6	...	...	160
39, 5*	...	...	183
45, 26*	195, 203, 206, 209	...	
82, 1-2	...	...	197
89, 7*	...	...	155
„, 8*	...	155, 159	

SATAPATHA BRAHMANA.

	Page
III, 1, 4, 1 ...	178
2, 2, 30* ...	178
2, 4, 1-2-3* ...	190, 191, 195
2, 4, 10-16-17-21* ...	171
3, 2, 5-6 ...	175, 176
3, 4, 10 ...	190
4, 4, 27 ...	179
6, 2, 2 to 8 ...	201
6, 2, 2* ...	195, 201
6, 2, 8 ...	193, 201
6, 2, 9-10-11* ...	181
9, 3, 8-9* ...	172, 173
9, 3, 18 to 22* ...	194
9, 4, 2* ...	214
9, 4, 7 ...	214
IV, 1, 3, 1 to 10* ...	210 to 212
1, 3, 13-14-16-17* ...	151, 152
2, 1, 1 to 6* ...	216
2, 4, 19* ...	214
2, 5, 20 ...	189
3, 3 ...	206
The story of the Angirases ...	164, 165

AITAREYA BRAHMANA.

III, 3, 25-26* ...	141 to 144, 178
3, 26 and 28* ...	188
V, 23* ...	195

MAHABHARATA.

Adi Parva* ...	4 to 8, 121
----------------	-------------

RAMAYANA.

Aranya Kanda* ...	219, 220
Kishkindhya Kanda* ...	220
Lanka Kanda* ...	220, 221

ZEND AVESTA.

	Page
Aban Yast, 3-4 ...	116
15 ...	116
33 to 35* ...	133, 134
61 ...	117
62 ...	118
63 ...	122
65 ...	118
80 ...	122
85 ...	116
90 ...	116
125 to 128 ...	117
Tir Yast, 20 ...	123
21 ...	123
22, 23, 26 to 34* ...	124 to 126
Mihir Yast, 50-51 ...	114
90 ...	128
101 ...	119
123 ...	137
133-134 ...	137
Rashn Yast, 17 ...	116
Bahram Yast, 9 ...	131
19 to 21 ...	111
34-35-36-38 ...	120
39-40 ...	121
41 ...	115
Zamyad Yast, ...	112
22 ...	113
31 to 34 ...	113
36-37 ...	115
38 to 40 ...	115
46 ...	112, 113, 136
46 to 51 ...	136
56 to 64 ...	136
EDDA.	
Sœmund's Edda* ...	91, 99, 100

GENERAL INDEX.

A.		Page	B		Page
Aditya	9, 40, 50, 164 (see Sun)		Baldur	... ..	89
Æsir	... ..	89	Bergaigne	... ..	184
Aghasva	... ..	34	Bhishma	... ..	78
Agni	6, 41, 50, 56, 64f, 160, 164f, 166, 169, 183, 185, 201f		Brahma	... ..	169f
Ahi	68ff, 131, 197, (see Serpent and Vritra).		Brahmana	See Index of Passages	
Ahura Mazda	... 111, 114, 120, 127, 135		Brahmin	... 139f, 154, 212f	
Aksharâ	... ..	186	Brihaddiva	... ..	162f
Alâyya	... ..	100	Brishaspati	... ..	153
Altair	... ..	55, 60	Bull	... ..	107, 122
Amrita	6, 7, 22ff, 55, 145, 181, 209		C		
Angirases	... 163ff, 174, 182f		Cancer	... 51ff, 59f, 84	
Angra Mainyu	... 121, 123		Capricornus	38, 41, 46, 51ff, 54, 59f	111
Anushtup	... ..	170	Conan	... ..	103f
Apâm Napât	... 126, 128, 136		Cox (Sir George)	... ..	92
Apaosha	... 10, 122ff		Crab	... ..	83f
Apollo	... ..	81f, 93	Craigie (W. A.)	... ..	107
Aquarius	... 40, 43, 54, 81		Cuchulinn	... ..	105
Aquila	54ff, 59ff, 91, 98f, 108, 114, 118f, 121f, 163, 167, 192, 219ff		Cyclopes	... ..	93ff, 97
Archer	See Krisanu		Cycnus	... ..	66, 121f
Arctic Theory	... ..	3	D		
Ardvi Sura Anâhita	115ff, 133f		Dakshina	142, 165, 177, 182ff	
Aries	25, 39, 41ff, 46, 79, 108		Darmesteter	... ..	134
Artemis	... ..	81f	Dawn	78, 118, 129f, 149, 157, 174, 177, 183ff, 199, 204f, 218	
Arun	... 4, 6, 12, 21		Dawn Theory	... ..	2
Asgard	... 89, 90, 100		Demon of darkness	11, 12, 65, 204, 218f (see Vritra)	
Asvins	... ..	34	Devayana	... ..	24
Atar	... ..	135f	Diksha	... 142, 176ff, 181	
Audgrabhana	... ..	178	Dirghatama	... ..	161, 199f
Autumnal Equinox	8, 11, 12		Draco	... ..	54, 108
Avesta (Zend)	See Index of Passages				
Azi Dahâka	112, 114, 121, 131ff				

	Page		Page
Dvita	49	Glory 111, 112ff, 126, 128, 135ff	
Dyaus 27, 150, 155, 159, 185		Goat 39, 41ff, 79 (see Aries)	
Dyu	157, 159	Graha	151f, 211
E		Griffith	174, 185
Eagle 1, Chapter III, 78ff, 94, 98f, 116ff, 138, 170, 206, 218 (see Garurha and Syena)		Grimm (Jacob)	89
Earth	180f, 185, 195, 218	H	
Edda 88 (see Index of Passages).		Haoma	126, 127f
Eggs	4, 12	Haug (Martin)	168ff
Ekata	49	Heaven	180f, 185
Elephant 6, 121 (see Ophiuchus)		Hebe	79f
Encyclopædia Britannica	29	Hel	90f
Eos	35	Helen	217
Eye	91ff	Helicon (Mt.)	28
F		Herakles	79f, 83ff
Fafnir	97	Hillebrandt	58
Falcon	See Eagle	Horse 5, 27ff, 34, 39, 50f, 100ff, 122ff, 199ff, 208 (see Pega- sus and Uchchaisrava)	
Feather	7, 67, 120	Hotri	168f
Fomori	105	Hrimthursen	90
Frangrasyan	136	Hydra 68ff, 83ff, 91, 108, 132 (see Vritra)	
Freyja	99	I	
G		Ice Age	25
Gandharva	40, 181, 190ff	Indra 6, 11, 24, 34, 39, 40, 57, 58, 60ff, 72ff, 82, 100, 133, 135, 148, 151f, 156, 160, 166, 170, 174, 177f, 179f, 184, 185, 195, 203ff, 210	
Ganymedes	79ff	Indrajit	220f
Ganymeda	80	J	
Garônmâna	137	Jagati 140ff, 160, 170, 175, 177ff, 187ff	
Garurha 1, 6ff, 20ff, Chapter III, 208f, 220f (see Eagle)		Janamejaya	1, 5
Garutman 56f, 67, 151, 209, 221		Ja-ka	2
Gâyatri 140ff, 160, 169, 175, 176f, 187ff, 201, 202, 208f			
Geography	12ff		
Giant	87f, 89, 94ff		
Gilla Dacker	192ff		

	Page		Page
Jatāyu ...	... 218ff	Miggard ...	... 90
Jivātma ...	... 147ff	Milky Way ...	... 121f
Jotunheim ...	... 90	Mimir ...	... 90, 92
Jyotishtoma ...	... 179	Mithra ...	... 119, 137
K		Moon 51ff, 57ff, 62ff, 65, 68, 80f,	
Kadru 4ff, 11, 12, 21, 194ff, 200ff,		93, 97, 127f, 147ff, 157, 159,	
208, 221f		180, 192, 210, 214ff (see	
Kapinjala ...	... 167	Soma)	
Kashyapa ...	4, 9, 11	Muller (Max) 35, 47, 49, 56f, 78, 88	
Kavi Usa ...	... 120	Muses ...	... 28ff
Keresaspa ...	115, 132, 135	Mythology (Greek) 27, 78ff, 93	
Krisanu 63, 65f, 143, 144, 167f, 189f		" (Iranian) ...	110ff
Kronos ...	... 78, 93	" (Norse) ...	85ff
L		N	
Ladies ...	... 190ff	Nagalaya ...	... 21
Latitude ...	... 15, 54	Nakshatras ...	... 4
Leo ...	... 84	Niflheim ...	... 90
Libra ...	... 84	Nykur , ...	101f, 131
Loki ...	89, 99, 119	O	
M		Odin ...	88ff, 100
MacCool (Finn) ...	... 103ff	Ophiuchus ...	... 121f
Macdonell ...	... 31	P	
Mahabharata 1, 78, 106, 117f, 121f,		Paramātmā ...	... 147f
207ff, 221 (see Index of		Pedu ...	34, 35, 199
Passages)		Pegasus 25, 27, 33ff, 44, 46, 49ff,	
Mahendra ...	... 203f	102, 106, 123, 130, 200	
Mahidhar ...	... 50	Pierus ...	... 28
Manthin ...	... 215f	Pitriyana ...	... 24
Marka ...	... 215f	Plunket (Rt. Hon'ble) 58, 66 68	
Mathematical calculation 12ff, 16ff,		Pole ...	... 8, 54
25ff, 38f, 40ff, 46		Poseidon ...	... 27
Metis ...	... 78	Prajapāti ...	... 152
Metres 140ff, 145, 157f, 159f, 168ff,		Prataranuvaka ...	... 172
172ff, 187ff, 207ff		Precession of the equinoxes... 25	

	Page		Page
Purana ...	208, 209	Sarparājñi ...	195ff
" Purusha Sukta ...	161, 176	Savitri ...	56, 209
(see Index of Passages, X, 90)		Sayana 2, 41, 47, 48, 56f, 148, 150,	
Pushan ...	39, 42	174, 177, 183f, 204ff	
Q		Serpent...4, 6, 12, 68ff, 83, 115, 116,	
Queen of gods ...	155 (see Vāk)	196f, 212f, 220f	
" " serpents	195ff (see Sarpa- rājñi and Kadru)	Sigurd ...	97
R		Singer ...	153, 175
Rahu ...	20	Sita ...	217ff
Rama ...	217ff	Smith (Dr.) ...	27, 37, 93
Ramayana See Index of Passages		Soma 40, 51ff, 57ff, 61ff, 67f,	
Ravana ...	217ff	80, 100, 127f, 140, 141ff, 144ff,	
Ranghā ...	122	148, 151f, 155ff, 160, 163,	
Rasā ...	122	166ff, 171ff, 175ff, 180, 181,	
Rhys ...	105	190ff, 201ff, 208, 209, 210ff	
Rig Veda ...	See Index of Passages	Speech 153, 168ff, 207 (see Vāk)	
S		Spring Equinox ...	8, 22, 24, 55
Sacrifice ...	43ff, 55, 180, 182, 207, 214, 217	Srvara ...	115
Sacrifice (Soma)	161ff, 164ff, 208	St. Petersburg Lexicon ...	100, 196
Sacrifice (Snake) ...	1, 5	Storm Theory ...	3
Saēna ...	110	Sukra ...	206, 215f
Sagitta ...	66	Summer Solstice 8, 11, 69, 77, 81, 88	
Sagittarius ...	38, 65f, 168 (see Krisanu)	Sun ...	6, 10, 20, 42, 49, 56, 64f, 71ff, 81, 97, 98, 129f, 147ff, 156, 157, 159, 179, 180, 183, 193, 197, 198, 204f, 214, 215f, 218
Sama ...	145	Suparna ...	7, 56, 57, 67, 142ff, 147ff, 155ff, 167, 194, 208f
Sama Veda See Index of Passages		Suparni ...	181, 193, 194ff, 200ff, 208
Sambara ...	61	Suryā ...	79, 149, 191
Sampāti ...	220	Sushna ...	75
Samudra Manthan ...	1	Syena 111, 140f, 156, 159, 160, 163, 170ff, 206ff (see Eagle)	
Sanda ...	215f	Syllables 142f, 145, 169f, 177, 186f	
Santanu ...	78	T	
Saptadasa-stoma ...	189	Tapas ...	142, 177, 179ff
Sarasvati ...	168	Tartarus ...	81f, 93

